

A COMPARATIVE GRAMMAR OF  
THE HITTITE LANGUAGE

VOLUME I





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*A Comparative Grammar of*  
**THE HITTITE LANGUAGE**

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## P R E F A C E

The last seventeen years have seen great improvements in our understanding of the Hittite texts, in our knowledge of the grammatical structure of the language, and in our comprehension of the other Anatolian languages. The first two lines of improvement have gone so far that a new treatment of Hittite is fairly demanded. Unfortunately we still know so little about Anatolian speech outside of Hittite that we cannot undertake a detailed treatment of Anatolian comparative grammar. This is the more regrettable since there is reason to hope that within a very few years such a book can and must be written. Documents now awaiting the attention of competent scholars should enable us to reconstruct Proto-Anatolian speech with a good deal of confidence.

We can, then, already claim to know that Hittite and four or five other languages of ancient Asia Minor are closely related to one another. Their common ancestor, Proto-Anatolian, is a sister language of Proto-Indo-European, both being descended from Proto-Indo-Hittite. This theory lies at the basis of the following treatment, and it is hoped that the evidence here presented will convince most readers. Those who do not accept the theory can readily translate our etymological reconstructions into their own terminology.

The cards containing verified citations of Hittite forms that were prepared for use in making the first edition of this book by Dr. Grace Hopkins and Dr. George Bechtel have been amplified and have been used as the basis of the present edition. Professor Albrecht Goetze has generously made considerable additions from his private lists. It is hoped that the paradigms of declension and conjugation are now nearly complete.

The brief remarks on syntax that were included in the first edition have been omitted, since Professor E. Adelaide Hahn is preparing a complete treatment of Hittite syntax, which is to form a second volume of this grammar. A number of cross references to the sections of that volume are included in the text that follows.

Thanks are due to numerous scholars who have improved our knowledge of Hittite and of Indo-Hittite comparative grammar; to the committee of Yale University in charge of the William Dwight Whitney Linguistic Series for undertaking the publication of this volume and for contributing toward meeting its cost; and to the Yale University Press for a very efficient job of printing. Particular mention should be made of the patience and skill of the stylist Elizabeth McMullan. Professor E. Adelaide Hahn and Professor Albrecht Goetze have shown much kindness in reading proof. Miss Eleanor A. Hill has employed great skill and care in preparing the manuscript and in drafting the cuneiform characters that appear in the text.



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## ABBREVIATIONS

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- ABoT = Bo<sup>z</sup>azköy-Tafeln im Archäologischen Museum zu Ankara. Istanbul. 1948.
- AJP = American Journal of Philology. Baltimore.
- Altorient. Stud. = Altorientalistische Studien Bruno Meissner zum Sechzigsten Geburtstag Gewidmet. Vol. 1. Leipzig. 1928.
- Anal. Orient. = Analecta Orientalia Memoriae Alexandri Csoma de Körös Dicata. Vol. 1. Budapest. 1942.
- AOF = Archiv für Orientforschung (Vols. 1 and 2, Archiv für Keilschriftforschung). Berlin.
- AOr = Archiv Orientalní. Prague.
- BASOR = Bulletin of the American Schools of Oriental Research. Jerusalem and Baghdad.
- Bechtel, -sk- = George Bechtel, Hittite Verbs in -sk-. Ann Arbor. 1936.
- Benveniste, Origines 1 = Émile Benveniste, Origines de la formation des mots en indoeuropéen. Vol. 1. Paris. 1935.
- Bossert, Königssieg. = Helmuth Th. Bossert, Ein hethitisches Königssiegel = Istanbulische Forschungen 17. Berlin. 1944.
- BoSt. = Boghazköi-Studien, herausgegeben von Otto Weber. 10 parts. Leipzig. 1917-24.
- BoTU = Die Boghazköi-Texte in Umschrift, von Emil Forrer. 2 vols. = 41 und 42 wissenschaftliche Veröffentlichung der deutschen Orient-Gesellschaft. Leipzig. 1922-6.
- Brugmann, Grundr. = Karl Brugmann, and Berthold Delbrück, Grundriss der vergleichenden Grammatik der indogermanischen Sprachen, 2d ed. Strassburg. 1897-1916.
- BSL = Bulletin de la Société de Linguistique de Paris. Paris.
- Caesar, BG = Caesar, Bellum Gallicum.
- CIL = Corpus Inscriptionum Latinarum. Berlin.
- Congr. = Actes du Congrès International de Linguistes. The Hague. 1928. (Geneva. 1931.)
- Couvreur, Hett. *H* = Walter Couvreur, De Hettitische *H*, een Bijdraage tot de Studie van het Indo-Europeesche Vocalisme. Louvain. 1937.
- CP = Classical Philology. Chicago.
- Delitzsch, Ass. Gramm. = Friedrich Delitzsch. Assyrian Grammar. Berlin. 1889.
- Duchesne-Guillemin, E H = J. Duchesne-Guillemin, Études Hittites = Transactions of the Philological Society 73-91 (1946).
- Feist, VWGS = Sigmund Feist, Vergleichendes Wörterbuch der gotischen Sprache, 3d ed. Leiden. 1939.

- Friedrich, Elementarb. = Johannes Friedrich, Hethitisches Elementarbuch 1. Kurzgefasste Grammatik. Heidelberg. 1940.
- Friedrich, Hethitisch = Johannes Friedrich, Hethitisch und Kleinasiatische Sprachen = Geschichte der indogermanischen Sprachwissenschaft 2.5.1. Berlin and Leipzig. 1931.
- Freidrich, Vertr. = Johannes Friedrich, Staatsverträge des Hatti-Reiches in Hethitischer Sprache. 2 parts = MVAG 31.1, 34.1. Leipzig. 1926-30.
- Frisk, Idg. = Hjalmar Frisk, Indogermanica = Göteborgs Högskolas Årsskrift 44.1 Göteborg. 1938.
- Glotta = Glotta, Zeitschrift für griechische und lateinische Sprache. Göttingen.
- Goetze, Kizzuw. = Albrecht Goetze, Kizzuwatna and the Problem of Hittite Geography = Yale Oriental Series, Researches 22. New Haven. 1940.
- Goetze, Tunn. = Albrecht Goetze, The Hittite Ritual of Tunnawi = American Oriental Series 14. New Haven. 1938.
- Götze, AM = Albrecht Götze, Die Annalen des Muršiliš = MVAG 38. Leipzig. 1933.
- Götze, Hatt. = Albrecht Götze, Hattušiliš, der Bericht über seine Thronbesteigung nebst den Paralleltexten = MVAG 29.3. Leipzig. 1925.
- Götze, Madd. = Albrecht Götze, Madduwattaš = MVAG 32.1. Leipzig. 1928.
- Götze, NBr. = Albrecht Götze, Neue Bruchstücke zum grossen Texte des Hattušiliš und den Paralleltexten = MVAG 34.2. Leipzig. 1930.
- Götze-Pedersen, MS = Albrecht Götze and Holger Pedersen, Muršilis Sprachlähmung = Det Kgl. Danske Videnskabernes Selskab, Historisk-filologiske Meddelelser 21.2. Copenhagen. 1934.
- Gurney, HPM = O. R. Gurney, Hittite Prayers of Mursili II = Annals of Archeology and Anthropology 27 (1940).
- Hendricksen, Laryng. = H. Hendricksen, Untersuchungen über die Bedeutung des Hethitischen für die Laryngaltheorie = Det. Kgl. Danske Videnskabernes Selskab, Historisk-filologiske Meddelelser 28.2. Copenhagen. 1941.
- Hesych = Hesychius, Lexicon Graecum (a Byzantine Collection of Greek Glosses).
- Hirt Festschrift = Germanen und Indogermanen, Festschrift für Hermann Hirt. 2 vols. Heidelberg. 1936.
- HG<sup>1</sup> = E. H. Sturtevant, Comparative Grammar of the Hittite Language. Philadelphia, 1933.
- Hrozný, CH = F. Hrozný, Code Hittite. Paris. 1922.
- Hrozný, SH = F. Hrozný, Die Sprache der Hethiter, ihr Bau und ihre Zugehörigkeit zum indogermanischen Sprachstamm = BoSt. 1, 2. Leipzig. 1917.
- HT = Hittite Texts in the Cuneiform Character from Tablets in the British Museum. London. 1920.
- IBoT = Istanbul Arkeoloji Müzelerinde bulunan Boğazköy-Tabletlerinden seçme Metinler, 2 fascicles.
- IF = Indogermanische Forschungen. Berlin and Leipzig.
- IHL = E. H. Sturtevant, The Indo-Hittite Laryngeals. Baltimore. 1942.
- JA = Journal Asiatique . . . publié par la Société Asiatique. Paris.

- JAOS = Journal of the American Oriental Society. New Haven.  
 JCS = Journal of Cuneiform Studies. New Haven.  
 JRAS = Journal of the Royal Asiatic Society of Great Britain and Ireland. London.  
 KBo. = Keilschrifttexte aus Boghazköi. 6 parts = 30, 36 Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft. Leipzig. 1921-3.  
 KIF = Kleinasiatische Forschungen. 1 vol. Weimar. 1930.  
 KUB = Staatliche Museen zu Berlin, Vorderasiatische Abteilung, Keilschrift-Urkunden aus Boghazköi. Berlin. 1921-.  
 Kuryłowicz, EI = Jerzy Kuryłowicz, Études Indoeuropéennes. Vol. 1. Cracow. 1935.  
 KZ = Zeitschrift für vergleichende Sprachforschung. Berlin.  
 Lang. = Language, Journal of the Linguistic Society of America. Baltimore.  
 MDOG = Mitteilungen der Deutschen Orient-Gesellschaft. Berlin.  
 Mél. Boisacq = Mélanges Émile Boisacq. 2 vols. = Annuaire de l'institut de philologie et d'histoire orientales et slaves 5, 6. Brussels. 1937-8.  
 Mél. Cumont = Mélanges Franz Cumont = Annuaire de l'institut de philologie et d'histoire orientales et slaves 4. Brussels. 1936.  
 Mél. Pedersen = Mélanges linguistiques offerts à M. Holger Pedersen à l'occasion de son soixante-dixième anniversaire. Copenhagen. 1937.  
 Milewski, L'IH et l'IE = Tadeusz Milewski, L'Indo-Hittite et l'Indo-Européen. Cracow. 1936.  
 MSL = Mémoires de la Société de Linguistique de Paris. Paris.  
 MVAG = Mitteilungen der Vorderasiatisch-Aegyptischen Gesellschaft. Leipzig.  
 NT = Norsk Tidsskrift for Sprogvidenskap. Oslo.  
 OLZ = Orientalistische Literaturzeitung, Monatsschrift für die Wissenschaft vom ganzen Orient und seinen Beziehungen zu den angrenzenden Kulturkreisen. Leipzig.  
 Orientalia, NS = Orientalia; Commentarii Periodici Pontificii Instituti Biblici, Nova Series. Rome.  
 Ose, Supinum und Infinitiv im Heth. = Fritz Ose, Supinum und Infinitiv im Hethitischen = MVAG 47.1. Leipzig. 1944.  
 Otten, Telepinu-Mythus = Heinrich Otten, Die Überlieferungen des Telepinu-Mythus = MVAG 46.1. Leipzig. 1942.  
 Pedersen, Groupm. = Holger Pedersen, Le Groupement des dialectes indo-européens = Det Kgl. Danske Videnskabernes Selskab, Historisk-filologiske Meddelelser 11.3. Copenhagen. 1925.  
 Pedersen, Hitt. u. IE = Holger Pedersen, Hittitisch und die anderen indo-europäischen Sprachen = Det Kgl. Danske Videnskabernes Selskab, Historisk-filologiske Meddelelser 25.2. Copenhagen. 1938.  
 Pedersen, KG = Holger Pedersen, Vergleichende Grammatik der Keltischen Sprachen. 2 vols. Göttingen. 1909-13.  
 Pedersen, Lyk. u. Hitt. = Holger Pedersen, Lykisch und Hittitisch = Det Kgl. Danske Videnskabernes Selskab, Historisk-filologiske Meddelelser 30.4. Copenhagen. 1945.  
 Pedersen, Toch. = Holger Pedersen, Tocharisch vom Gesichtspunkt der indo-



- europäischen Sprachvergleichung = Det Kgl. Danske Videnskabernes Selskab, Historisk-filologiske Meddelelser 28.1. Copenhagen. 1941.
- Pokorny, Idg. et. Wörterb. = Julius Pokorny, Indogermanisches etymologisches Wörterbuch. Bern. 1949-.
- RA = Revue d'assyriologie et d'archéologie orientale. Paris.
- REAn. = Revue des études anciennes = Annales de la Faculté des Lettres de Bordeaux et des Universités du Midi, quatrième série. Bordeaux.
- RHA = Revue Hittite et Asianique, organe de la Société des Études Hittites et Asianiques. Paris.
- RO = Rocznik Orientalistyczny. Lwów.
- RV = Rig Veda.
- Sommer, AU = Ferdinand Sommer, Die Ahhijavā-Urkunden = Abhandlungen der Bayerischen Akademie der Wissenschaften, phil.-hist. Abteilung, NF 6. Munich. 1932.
- Sommer, Bil. = Ferdinand Sommer und Adam Falkenstein, Die hethitisch-akkadische Bilingue des Hattušili I (Labarna II) = Abhandlungen der Bayerischen Akademie der Wissenschaften, phil.-hist. Abteilung, NF 16. Munich. 1938.
- Sommer, Gr. Lautst. = Ferdinand Sommer, Griechische Lautstudien. Strassburg. 1905.
- Sommer, Hdb. d. lat. Laut- und Formenlehre = Ferdinand Sommer, Handbuch der lateinischen Laut- und Formenlehre, 2d and 3d ed. Heidelberg. 1914.
- Sommer, Heth. u. Heth. = Ferdinand Sommer, Hethiter und Hethitisch. Stuttgart. 1947.
- Sturtevant-Bechtel, Chrest. = E. H. Sturtevant and George Bechtel, A Hittite Chrestomaty. Philadelphia. 1935.
- Symb. Gramm. = Symbolae Grammaticae in Honorem Ioannis Rozwadowski. Cracow. 1927.
- TAPA = Transactions of the American Philological Association. Lancaster, Pa.
- VBoT = Albrecht Götze, Verstreute Boghazköi-Texte. Marburg a.d. Lahn. 1930.
- Walde-Pokorny = Alois Walde, Vergleichendes Wörterbuch der indogermanischen Sprachen, herausgegeben und bearbeitet von J. Pokorny. 3 vols. Berlin and Leipzig. 1927-32.
- Whitney, Skt. Gramm. = W. D. Whitney, A Sanskrit Grammar, 2d ed. Leipzig and Boston. 1889.
- WZKM = Wiener Zeitschrift für die Kunde des Morgenlandes. Vienna.
- ZA = Zeitschrift für Assyriologie und Verwandte Gebiete. Berlin and Leipzig.
- ZDMG = Zeitschrift der Deutschen Morgenländischen Gesellschaft. Leipzig.

## II. LANGUAGES AND DIALECTS

- |                 |                                   |
|-----------------|-----------------------------------|
| Aeol. = Aeolic  | Av. = Avestan                     |
| Arc. = Arcadian | BO = Boghazköitexte (unpublished) |
| Arm. = Armenian | Cyp. = Cyprian                    |
| Att. = Attic    | Cz. = Czechish                    |

Dor. = Doric	OE = Old English
Eng. = English	OHG = Old High German
Gmc. = Germanic	OIcel. = Old Icelandic
Gk. = Greek	OIr. = Old Irish
Goth. = Gothic	OLat. = Old Latin
Hitt. = Hittite	OP = Old Persian
Hom. = Homeric	OPrussian = Old Prussian
IE = Indo-European	OS = Old Saxon
IH = Indo-Hittite	Osc. = Oscan
Ion. = Ionic	Osc.-Umbr. = Oscan-Umbrian
Ir. = Irish	Pal. = Palaic
Ital. = Italic	pre-Gk., pre-IE, etc. = pre-Greek, pre-Indo-European, etc. <sup>1</sup>
Lac. = Laconian	Proto-Gk., Proto-IE, etc. = Proto- Greek, Proto-Indo-European etc. <sup>1</sup>
Lat. = Latin	Serb. = Serbian
Lesb. = Lesbian	Skt. = Sanskrit
Lett. = Lettic	Swed. = Swedish
Lith. = Lithuanian	Thess. = Thessalian
Luw. = Luwian	Toch. = Tocharian <sup>2</sup>
Lyc. = Lycian	Umbr. = Umbrian
Lyd. = Lydian	VAT = Vorderasiatische Tontafeln (unpublished)
Norw. = Norwegian	Ved. = Vedic
OBret. = Old Breton	WGmc. = West Germanic
OCS = Old Church Slavic	
OCz. = Old Czechish	

## III. OTHER ABBREVIATIONS

abl. = ablative	durat. = durative
acc. = accusative	e.g. = for example
act. = active	f. = and the following page
Anm. = Anmerkung	fem. = feminine
aor. = aorist	fn. = footnote
ap. = as quoted by	fut. = future
ca. = about	gen. = genitive
causat. = causative	gndv. = gerundive
cf. = compare	ib. = in the same article (or book)
dat. = dative	i.e. = that is
desid. = desiderative	imper. = imperative

<sup>1</sup> A prefixed Proto- designates an ancestral language known only through the process of reconstruction. A prefixed pre- designates a period previous to a given language (whether known from actual documents or by reconstruction) and generally subsequent to another language (usually a reconstructed language); if a form is labeled pre-Gmc. or the like, it belongs to some linguistic stage within the designated period. See Leonard Bloomfield, *Language* 310-12 (New York, 1933), who there uses the word Primitive where we now write Proto-.

<sup>2</sup> The two dialects of this language are designated by the letters A and B.

imperf. = imperfect  
 infin. = infinitive  
 inst. = instrumental  
 loc. = locative  
 masc. = masculine  
 midd. = medio-passive  
 N.B. = notice especially  
 neut. = neuter  
 NF = Neue Folge  
 nom. = nominative  
 p. = page  
 part. = participle  
 passim = occurrences very numerous  
 perf. = perfect  
 pl. = plural  
 pres. = present  
 pret. = preterit  
 q.v. = consult that passage  
 sg. = singular  
 sup. = supine  
 s.v. = under that word (in a dictionary)  
 verb. n. = verbal noun

w. = with  
 < = comes from or coming from  
 > = becomes or becoming  
 : = related to  
 / = alternating with  
 [ ] Cross references are enclosed in square brackets. References to paragraphs of Volume II of this book are preceded by the figure 2. Square brackets about Roman type indicate phonetic transcription.  
 ( ) If part of a word is enclosed in parentheses, that part is sometimes omitted.  
 \* An asterisk is sometimes used to indicate that a word is purely hypothetical. This symbol is not prefixed to a reconstructed form that is otherwise labeled as such. In §§178-86 early pronominal forms are marked with a prefixed asterisk.

§ = section

## INTRODUCTION

1. Our knowledge of the Hittite language is almost entirely based upon clay tablets discovered at the Turkish village of Boğazköy, ninety miles east of Ankara. Here excavations were started in 1906 by Hugo Winckler<sup>1</sup> and continued in 1931-9 by Kurt Bittel<sup>2</sup> and others. The site was that of ancient Hattusas (<sup>URU</sup>*Ha-at-tu-ša-aš*), the capital of the Hittite empire about 1700-1200 B.C., and the recovered tablets belonged to the royal archives. They include several versions of a law code, royal decrees and proclamations, treaties of Hittite monarchs with their vassals and with independent kings, letters by and to the kings and members of their families, annals of various kings, directions for rituals to be performed at the court festivals, prayers, accounts of magic rites for the cure of disease and for other purposes, records of omens, and a number of mythological legends. Of unique interest is a group of texts on the training of race horses, written by one Kikkulis of Mitanni.

Scarcely half of the Boğazköy texts have so far been published, in two great collections and several smaller ones: *Keilschrifttexte aus Boghazköi*, 6 fascicles, Leipzig, 1921-3; *Keilschrift-Urkunden aus Boghazköi*, Parts 1-34, Berlin, 1921-44; *Hittite Texts in the Cuneiform Character from Tablets in the British Museum*, London, 1920; Albrecht Götze, *Verstreute Boghazköi-Texte*, Marburg, 1930; H. Bozkurt, M. Çiğ, and H. G. Güterbock, *Istanbul Arkeoloji Müzelerinde bulunan Boğazköy Tableterinden seçme Metinler*, 2 fascicles, Istanbul, 1944-7; and Kemal Balkan, *Boğazköy-Tafeln im Archäologischen Museum zu Ankara*, Istanbul, 1948.

2. From other sites than Boğazköy we have very little material, but enough to justify the hope for more. Two letters in the Hittite language were found among the Amarna letters in Egypt. One is from the Pharaoh Amenophis III to Tarhundaradu, king of Arzawa in southwestern Asia Minor, and the other is probably from Tarhundaradu to the Pharaoh. These letters are included in VBoT as the first two numbers. Albrecht Goetze<sup>3</sup> has published a deed to land issued by a Hittite king, which, however, consists entirely of ideograms, Akkadian words, and proper names; it was found in Tarsus. Sidney Smith<sup>4</sup> has published a letter from a Hittite king that was discovered in Aḡana near Antioch. Helmuth T. Bossert<sup>5</sup> records the finding at Hüyüktepe in central Asia Minor of a private letter in Hittite. Several other texts are soon to be published.

<sup>1</sup> MDOG 35 (1907).


<sup>2</sup> MDOG 70 (1932).

<sup>3</sup> JAOS 59.1-5 (1939).

<sup>4</sup> The Antiquaries Journal 19.38-48 (1939); cf. Johannes Friedrich, *Orientalia*, NS 8.310-16 (1939); Hans Ehelolf, *ZANF* 11.43-9 (1939).

<sup>5</sup> Bossert, *Königssieg*. 79 (1944).

3. The discoveries at Boğazköy include documents and parts of documents in several different languages. By far the greater part are composed in the Hittite language, to whose description this grammar is devoted.

4. The system of writing involves extensive use of Sumerian ideograms; a great many words are always or occasionally written by Sumerian word signs, just as they are in Akkadian texts, although they were read with the corresponding Hittite (or Akkadian) word; e.g.  = LUGAL 'king' was to be read *ŠARRU* in an Akkadian text and *ḫa-aš-šu-uš* in a Hittite text. In this book Sumerian words are printed in capitals.

Akkadian words are often written instead of Hittite words in Hittite texts. Thus Akkadian *BE-LU*, as well as Sumerian *EN*, may stand for Hittite *iš-ḫa-a-aš* 'master'. Furthermore, it is possible to write a Sumerian ideogram with the end of the Akkadian word (e.g. *DINGIR-LIM* = *ILIM* 'of the god') or with the end of the Hittite word (e.g. *DINGIR-iš* = *ši-ú-ni-iš* 'god'). Sometimes all three languages are combined in the writing of a single Hittite word (e.g. *DINGIR-LIM-ni* = *ši-ú-ni* 'to the god'). In this book Akkadian words and parts of words are printed in italic capitals.

Some of the Boğazköy documents are composed altogether in Akkadian, with occasional Sumerian ideograms. A number of treaties, including the famous one between Hattusilis III and Ramses II of Egypt, are written entirely in Akkadian; and there is a bilingual Hittite-Akkadian document composed by King Hattusilis I.<sup>6</sup> Hittite scribes composed glossaries of Sumerian, Akkadian, and Hittite words in parallel columns, and a considerable number of fragments of these have survived. Besides, there are some Akkadian passages cited in Hittite rituals (e.g. HT 5.1.15: <sup>URU</sup>*pa-pi-li-li MI-I-ŠI ŠU.MEŠ-KI me-ma-i*, 'he says in Babylonian, "Wash your hands"').

The implication of the Sumerian-Akkadian-Hittite glossaries and of the use of essentially the same system of writing in these three languages seems to be that, as the Akkadians learned to write from the Sumerians, the Hittites learned from the Akkadians. There are, however, serious difficulties in the way of such a theory. We have, to be sure, Akkadian texts from Kanis and other sites in Asia Minor of about 1900 B.C.<sup>7</sup> and later; but these differ so decidedly in the use of the cuneiform signs that they cannot be the source of the Hittite writing.

5. A more probable source for the Hittite use of the cuneiform signs is another language that is extensively used in the Boğazköy documents and also elsewhere in the Near East. Hurrian (Hitt. *Ḫur-li-li* 'in Hurrian', Hebrew *Ḥorî*, Gk. *Xoppaios*) is written in cuneiform characters in a long letter from King Tushratta of Mitanni to Amenophis III of Egypt, in several very ancient cuneiform texts from Māri on the middle Euphrates, and both in cuneiform and in alphabetic writing from Ras Shamra (ancient Ugarit) near the northeastern corner of the Mediterranean Sea. Particularly suggestive is the presence of many proper names of Hurrian etymology in a large part of northern Meso-

<sup>6</sup> Published in transcription with translation and commentary in Sommer, Bil.

<sup>7</sup> W. F. Albright, BASOR 78.26 (1940).

potamia; says E. A. Speiser:<sup>8</sup> 'Names of demonstrably Hurrian origin occur shortly after the middle of the third millennium in a region northeast of Akkad.'

This numerous and vigorous people was ruled, or at least largely influenced, by an aristocracy of Indic race; whence numerous Sanskrit names in Syria and northern Mesopotamia of the middle of the second millennium, the Indic words used by Kikkulis in his works on horsemanship, and the names of Vedic gods in a treaty entered into by the king of Mitanni [8].

Ferdinand Sommer<sup>9</sup> has recently made it seem probable that the Hittites entered Asia Minor from the east and that they learned to write before they settled in Hattusas. They may well have dwelt for a time in the neighborhood of Lake Van, where Hurrians were present also in the latter part of the third millennium.

There is, then, no difficulty in following the suggestion of certain similarities between the Hurrian and the Hittite fashion of employing the cuneiform syllabary. It has been suggested by Speiser<sup>10</sup> that the Hittites got their system of writing from the Hurrians.<sup>11</sup>

6. The most striking similarities between Hurrian writing and Hittite are the following. Both languages employ indiscriminately pairs of signs which in most Akkadian forms of the syllabary of the second or first millennium mark a distinction between corresponding voiced and voiceless phonemes; *da* and *ta*, *ga* and *ka* are used with identical value (e.g. *ta-ni-nu-zi* = *da-ni-nu-uz-zi*). It is virtually certain that Sumerian had no phonemic distinction between voiced and voiceless stops (we need not speak here of other pairs). Akkadian, as well as Hurrian and Hittite, always had such a distinction, but Akkadian scribes only gradually developed a certain number of symbols to mark the difference (such pairs as *ab* and *ap*, *ag* and *ak* continued to be written alike everywhere). We must assume that the Hurrians learned to write before this development had gone far.<sup>12</sup>

Both Hurrian and Hittite use the double writing of consonants to indicate voicelessness in positions where the cuneiform syllabary can do this (e.g. *kat-ta* 'with, down' : *κατά*, beside *a-da-an-zi* *a-ta-a-an-zi* 'they eat' : Lat. *edunt*). This device is somewhat more generally used in Hurrian than in Hittite<sup>13</sup> and it appears to have originated in Hurrian.

Hurrian writing is further distinguished from Akkadian of corresponding date by the sparing use of ideograms and determinatives. In this it is paralleled by Luwian [9] and Hattic [7] orthography, but not by that of most Hittite texts. We must assume a secondary assimilation of the Hittite syllabary to the

<sup>8</sup> Introduction to Hurrian 7 (New Haven, 1941).

<sup>9</sup> Heth. u. Heth. 1-38 (1947).

<sup>10</sup> Introduction to Hurrian 13 f. and fn. 8.

<sup>11</sup> For the strong Hurrian influence upon early Hittite language and culture, see Friedrich, RHA 47.11-17 (1947-8).

<sup>12</sup> Apparently the Akkadian distinction was later applied to Sumerian during the centuries when both languages were used by the same scribes; this will account for the considerable number of Sumerian characters that seem to mark the distinction.

<sup>13</sup> Speiser, Introduction to Hurrian 61 f. and elsewhere.

Akkadian about the time when our documents were written. At that time Akkadian had become the first great international language, and Hittite fell completely under its influence. In this way we can understand how Hittite came to use many ideograms and Akkadian words, and why it discarded the use of the digraphs *wa*, *wi*, etc. [45], which continued to be used in writing Hurrian, Hattic, and Luwian.<sup>14</sup>

7. Of peculiar interest are the passages in an otherwise unknown language which are introduced by such phrases as (KUB 1.14.2.14) *Ḫa-at-ti-li ki-iš-ša-an ma-al-di* 'he recites thus in Hattic' or (KUB 2.2.4.15) *Ḫa-at-ti-li me-ma-i* 'he says in Hattic'. The word *Ḫa-at-ti-li* is an adverb derived [116] from the ethnicon *Ḫa-at-ti*, which is applied, in Hittite and in other languages written in cuneiform characters, to the Hittite empire, to the later Hittite kingdom whose capital was Carchemish on the Euphrates River, and indeed, during the first half of the first millennium B.C., to all the peoples from the middle Euphrates to the Mediterranean. It gave rise to the Hebrew adjective *Ḫitti*, whence our word Hittite. The original *Ḫatti* were a people of central Asia Minor, whose name and some of whose gods the Hittites adopted along with the capital city *Ḫattus* (Hitt. *Ḫa-at-tu-ša-aš*). Our use of the Hebrew derivative Hittite for the conquerors and their speech enables us to call the aboriginal people Hatti and their language Hattic.<sup>15</sup> Some of the personal names of the Hittites seem to have been derived from Hattic (e.g. *Ḫa-at-tu-ši-li-iš*), and the consistent adoption of the ethnic term *Ḫa-at-ti* by the Hittites argues high respect for the earlier bearers of that name. The common practice of translating Hattic passages in the ritual texts indicates that the language was no longer in common use; in harmony with this conclusion is the fact that no part of the community of historical times is ever spoken of as being the former masters of the city; we get the impression that conquerors and conquered had been completely amalgamated.

8. Very different is the treatment of the few Indic words that are quoted in the Boğazköy documents. The treatises on horses that were composed by Kikkulis of Mitanni contain several technical terms that include Indic numerals, and a treaty between the Hittite king Suppiluliumas and Mattiwaza of Mitanni contains the names of several Vedic gods.<sup>16</sup> These forms are clearly traces of the language of the Indic aristocracy of the Hurrian state of Mitanni.

<sup>14</sup> My colleague Albrecht Goetze suggests that excavations in Syria may bring to light a possible Akkadian source for the peculiarities of both Hurrian and Hittite writing. No such features occur in the texts from Māri, and it cannot be assumed beforehand that they existed in Akkadian writing some miles to the Northeast and two or three centuries earlier.

<sup>15</sup> There is no good reason for calling them Proto-Hattic or Proto-Hittite. Forrer's term Kanesisch for Hittite has nothing in its favor. Hrozný may be correct in thinking that *Ne-eš(?) -um-ni-li* (VBoT 2.25) refers to official Hittite and therefore in calling the latter Nesite; but the now familiar name Hittite is more convenient. Cf. Sommer, *Heth. u. Heth.* 13.

<sup>16</sup> Kikkulis is translated by Hanns Potratz, *Das Pferd in der Frühzeit*, Rostock, 1938. Discussions of the Indic gods in the Hittite treaty are listed in D. C. Swanson, *A Select Bibliography of the Anatolian Languages*, 22 f. (New York, 1948).

## THE ANATOLIAN LANGUAGES

9. In addition to the above there are in the Boğazköy documents short passages in three languages that are genetically close to Hittite. A number of ritual texts contain passages that are to be spoken *Lu-ú-i-li* 'in Luwian'. Many of these passages are fragmentary and all are brief; and many such bits are still unpublished. One passage of three lines (KUB 9.31.2.22-4) exists in an approximate Hittite version (KUB 9.31.1.36-8 = HT 1.1.29-31). Furthermore, a considerable number of forms in various Hittite texts are marked with one or two slanting wedges (represented in this book by parallel vertical lines), and enough of these forms occur in Luwian passages to suggest that the slanting wedges may mark words as Luwian.

From these scanty sources it has been shown that Luwian is a language very close to Hittite, but differing from it at least in the following respects.<sup>17</sup>

1. The nominative plural ends in *-in-zi* or *-en-zi* (e.g. *ku-in-zi* = Hitt. *ku-i-e-eš*) and the accusative plural in *-an-za* (e.g. *dam-ma-ra-an-za*).

2. Instead of a genitive case there is a possessive adjective in *-ša-aš* or *-ši-iš* declined to agree with the modified substantive. It may be the genitive seen in Hittite plus a vowel and a set of case endings. Compare the Lycian genitive in *-ahi* [12].

3. The first singular present ends in *-wi* or *-ú-i* (e.g. *||ku-la-ni-wi*, *||ar-kam-ma-na-al-la-a-ú-i*), where Hittite has *-mi*.

4. The corresponding third singular ends in *-ti* (after vowels *-it-ti* *-at-ti*) and the third plural in *-an-ti*, *-in-ti*, or *-en-ti*, where Hittite shows final *-zi* [82c].

5. The preterit active first singular ends in *(-aḫ)-ḫa*, the third singular in *(-at)-ta* or *-it-ta*, and the third plural in *-an-da* (e.g. *||ta-pár-ḫa*, *||ta-pa-ar-ta* 'governed', *||ku-la-a-ni-it-ta*). The first singular must come from an old perfect [231]; the third person endings may be historically middle forms (cf. *λυετο*, *λυοντο*).

The Luwian imperative is very similar to the Hittite, and so are the middle forms in *-ri*.

10. The people of *Pa-la-a* are called in the Hittite texts *Pa-la-um-ne-eš*, and in the ritual of the deity Ziparwas certain passages are to be spoken *Pa-la-um-ni-li* 'in Palaic'. The scanty remains of this language have been collected and discussed by Heinrich Otten, ZA NF 14.119-45 (1944), and by Bossert, Königssieg. 77-92.

The language must be closely related to Hittite in view of such pronouns as *ku-iš*, *ku-it*, *ku-i-ša*, a sentence connective *nu*, and nominative singular case endings *-aš* and *-iš*. That it is nearer to Luwian than to Hittite is indicated by verb forms with ending *-ti* (cf. Hitt. 3 sg. *-zi*) and *-an-ti* (cf. Hitt. 3 pl. *-an-zi*). Other verbs end in *-it*, *-in-ta*, *-an-ta*; the first is presumably third singular preterit; the others may be third plural preterit, active or middle. The two forms *aš-du* and *a-ša-an-du* are, no doubt, equivalent to Hitt. *e-eš-du* 'estō' and *a-ša-*

<sup>17</sup> On Luwian inflection, see Sommer, AU index s.v. Luvisch, 458 (1932); Friedrich, Elementarb. 24, 64 f. (1940), RHA 47.1-18 (1947-8). On Luwian in general, see Bernhard Rosenkranz, IF 56.265-84 (1938); Bossert, Königssieg. 107-10 (1944). Further Luwian material will soon be published by Heinrich Otten.



*an-du 'suntō'. A verb *ki-i-ta-ar* occurring at the end of three successive lines seems to be a medio-passive in -r (cf. Hitt. -ri [279]).*

11. Hieroglyphic Hittite inscriptions are texts inscribed on stone or metal in peculiar characters, many of which are obviously pictures. These occur in Asia Minor and especially in northern Syria. They are found in the rock temple of Yazılıkaya near Boğazköy, and the Hittite monarchs used this kind of writing on their seals, some of which have been impressed upon cuneiform Hittite tablets. They extend in date from the days of the great Hittite empire to the middle of the first millennium B.C.

Most scholars believe that the language of these documents is not identical with any of those we have mentioned hitherto, although it is still possible that the earliest texts at least may turn out to be in Luwian.

During the last ten years considerable progress has been made in the interpretation of Hieroglyphic Hittite, especially by I. J. Gelb of the University of Chicago. I had hoped to refer to his treatment of the language, but publication of this has been postponed on account of an unexpected discovery.

In the fall of 1946 H. T. Bossert and several of his colleagues at the University of Istanbul found a long bilingual inscription in Phoenician and Hieroglyphic Hittite at Karatepe in eastern Cilicia.

The Phoenician text, preserved in three copies, has already been published and interpreted by several scholars, but only a part of the hieroglyphic text has yet been disclosed. Until the rest is published research is at a standstill.<sup>18</sup>

12. Besides Hittite, Hieroglyphic Hittite, Luwian, and Palaic, we know that two other languages belong to the Anatolian group.<sup>19</sup> In the time of Greek ascendancy the language spoken in the southwestern corner of Asia Minor was Lycian. It is known to us from 150 inscriptions written in an alphabet derived from Greek by the addition of several characters. They have been published by the Vienna Academy under the editorship of Ernst Kalinka (*Tituli Lyciae Lingua Lycia Conscripti*, Vienna, 1901). Kalinka's transcription is disfigured by three arbitrary departures from the practice of his predecessors; he prints *c* instead of *k* for the Lycian *κ*, *k* where others reproduce *χ* of the original, and *κ* for the sign customarily transcribed *T* by earlier students of Lycian as well as by editors of Greek dialect inscriptions. These transcriptions have misled many scholars.<sup>20</sup>

The Lycian inscriptions were all written during the fifth and fourth centuries B.C. The last 101 lines of the great Xanthos stele and the 17 lines of *Tituli Lyciae* 55 are in a different dialect from the others; for no compelling reason it is generally known as Milyan. The most recent and among the best treatments of the language are Piero Meriggi, *Der Indogermanismus des Lykischen*, in *Hirt Festschrift* 2.257-82 (1936), and Pedersen, *Lyk. u. Hitt.* (1945).

There is no distinction between masculine and feminine any more than in

<sup>18</sup> The clearest and best statement of the publications concerning this find that have appeared and the conclusions that can be drawn from them is H. G. Güterbock, *Die Bedeutung der Bilinguis von Karatepe für die Entzifferung der hethitischen Hieroglyphen*, *Eranos* 47.93-115 (1949).

<sup>19</sup> On the later Anatolian languages, see Swanson, *A Select Bibliography of the Anatolian Languages*, 1948.

<sup>20</sup> Pedersen, *Lyk. u. Hitt.* 7-13 (1945).

the other Anatolian languages; the dative singular ends in *-i*, accusative plural in *-as* = Hitt. *-us* (from *-us*), and dative plural in *-a* = Hitt. *-as*. The Lycian possessive adjective ends in *-ahi* or *-ehi* (Milyan *-asi*); it evidently comes from something like the Luwian possessive adjective in *-asas* or *-asis* (*-aš-aš*, *-aš-iš*).

The Lycian present third singular and third plural ends in *-ti* *-di* (e.g. *aiti adi edi* 'he does, makes; they do, make; *prñawati* 'he builds'). Since *-di* is a secondary development of *-ti*, we have close correspondence with the Luwian and Palaic endings sg. *-ti* and pl. *-nti* [9.4; 10; 82]. The Lycian preterit ends in 1 sg. *-xa* *-ga*, where *-ga* (with a voiced spirant) is a secondary development from *xa*, and in 3 sg. and pl. in *-te* *-de*. This corresponds with Luwian 1 sg. *-ha*, 3 sg. *-ta*, 3 pl. *-nta*. As an example of the Lycian preterit may be cited *prñawaxa* 'I built', *prñawate* 'he built'.

This verb is related to Hitt. *pár-na* (neut. pl.) 'buildings'. Lyc. *xñtawata* 'leader' and pret. *xñtewete* 'led' contain the root seen in Hitt. *ha-an-za* 'front', *ha-an-ti* 'in front, before' (*āvrī*, Lat. *ante*, etc.), and *ha-an-te-iz-zi-iš* 'first'. Lyc. *ebe* 'that' is the same word as Hitt. *a-pa-(a)-aš*. Lyc. *xuga* 'grandfather' is Hitt. *hu-uḫ-ha-aš*; it is cognate with IE *avos* (Lat. *avus*) from IH *xauxos*. Milyan *-ke* 'and' is preserved in the Lycian inscriptions in *ti-ke* 'anyone'; it must be cognate with IE *-kwe* (Skt. *-ca*, *-re*, Lat. *-que*); we shall find the word in Lydian.

13. The Lydian language is known to us from 54 inscriptions, 39 discovered during the American excavations in Sardis (1910–14),<sup>21</sup> 12 known previously, and 3 others. W. H. Buckler published 51 inscriptions in *Lydian Inscriptions*, Part 2, 1924. Johannes Friedrich republished them, with the addition of two coin inscriptions, in *Kleinasiatische Sprachdenkmäler* 108–23, 1932. An additional inscription was published by H. T. Bossert in *Forschungen und Fortschritte* 12.430–1 (1936).

The Lydian inscriptions are written in an alphabet based upon the Greek, but in a form more archaic than has to be assumed for the Lycian alphabet; in other words, the Lydian alphabet must have been adapted from the Greek more anciently than the Lycian. All the known inscriptions are at least as old as the fourth century B.C.

The interpretation of Lydian is based largely upon an Aramaic version of an epitaph of eight lines. The final interpretation of this document was contributed by Paul Kahle and Ferdinand Sommer, *KlF* 1.18–86 (1930). The best work on Lydian grammar has been contributed by Piero Meriggi, *RHA* 3.69–116 (1936) and Hirt *Festschrift* 2.283–90 (1936).

The Lydian present-future has a third singular and plural in *-t* or *-d* (= Lyc. *-ti* or *-di*). The first singular ends in *-u* after a consonant, *-v* after a vowel (cf. the Luwian first singular ending in *-wi* [9.5, 69, 246]). Words that support the Anatolian character of Lydian are *amu* 'ego mihi', *ēmis* 'my' (Hitt. *am-mu-uk*, *-mi-iš*), *nid* 'not', *nik* 'neque' (Hitt. *na-at-ta*, Lyc. *ne* 'not', *-ke* 'and'), *pis pid* 'who what' (cf. Arzawan Hitt. *pī-ip-pī-it* 'whatever'<sup>22</sup>), *-as* *-ad* 'he it' *-v* 'him her' (cf. Hitt. *-aš* *-at* *-an* 'is id eum').

<sup>21</sup> Ancient Sardis has been largely buried under detritus washed down from Mt. Tmolus; the American excavators were digging into this heap when the First World War compelled them to desist. Probably more inscriptions are awaiting future diggers.

<sup>22</sup> VBoT 1.5, 9; Emil Forrer, *Forschungen*, 2.60–4 (Berlin, 1926).

14. As far as I know, all scholars entitled to an opinion now regard Hittite, Hieroglyphic Hittite, Luwian, Palaic, Lycian, and Lydian as closely related to one another. Some have held that Phrygian or Armenian or both should be added to the list. There are various opinions about the grouping of these languages and about their respective connections with Indo-European languages outside Asia Minor.

This is not the place for a complete treatment of any of the Anatolian languages except Hittite. In the following I shall omit all reference to Phrygian<sup>23</sup> and to Armenian.<sup>24</sup>

On the basis of the limited material now available, the six Anatolian languages seem to share these characteristics:

1. As far as we can tell, there is no phonemic difference in the length of the vowels. Hittite, to be sure, shows a great deal of double writing of vowels (e.g. *e-eš-zi* 'he is', *da-a-i* 'he places'), but in most words this is not consistent, and there are many instances of vowels written double that must originally have been short.

2. The distinction between voiced and voiceless phonemes is preserved. No discrimination between aspirates and non-aspirates has been observed.

3. Hittite preserves two of the IH laryngeals (IH *x* > Hitt. (*h*)*h*; IH *γ* > Hitt. *h*), and several other Anatolian languages preserve one or both of these [9.5, 12].

4. Hittite changes inherited *t* before *i̯* or *e̯* to *ts* (written *z*). The other Anatolian languages do not show this change [82b, c].

5. There are no certain traces of the feminine gender. Hittite has neuters plural in *-a*, *-i*, and *-u*, which correspond to IE neuters plural in *-ā*, *-ə*, *-ī*, and *-ū*. Such neuters plural are traditionally derived from feminine singular collectives but can better be traced to neuter singular collectives (note the nominative singular without case ending and the identity of accusative plural with nominative). The best evidence for a feminine in an Anatolian language is that presented by Meriggi for Lydian, but it is scarcely convincing.

6. No Anatolian language is known to show other tenses than present-future and preterit, or other moods than indicative and imperative.

7. Several Anatolian languages have a medio-passive voice. It need have no suffixed *r* (e.g. Hittite as against Luwian), and in this case we have present third singular in *-(t)ta* (= *-ro*), 3 pl. in *-nta* (= *-vro*). On the other hand, there may be a suffixed *r*, with or without a following vowel (e.g. Hitt. and Luw. 3 sg. pres. *-at-ta-ri*, Palaic *ki-i-ta-ar*).

<sup>23</sup> Holger Pedersen, *Hitt. u. E* 191 f. (1938), *Toch.* 258 (1941), *Lyk. u. Hitt.* 6 (1945), has claimed a close connection between Hittite and Phrygian. He cites only three scraps of evidence: a Phrygian 3 sg. imper. in *-tu* (written *-rou*; but this may readily be interpreted *-tō*), a midd. in *-r* (*adδakerop* 'afficitur'), *edaes* = Hitt. *da-a-iš* 'he placed'. This is not enough.

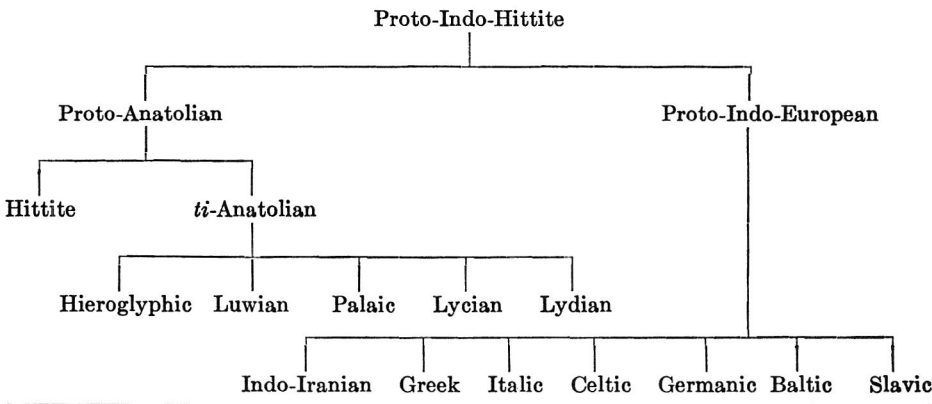
<sup>24</sup> W. M. Austin, *Lang.* 18.22-5 (1942), cites several Armenian words which show initial *h* where Hittite has initial *h* (Arm. *hav* = Hitt. *huhhas* 'grandfather', etc.). J. A. Kerns and Benjamin Schwartz, *Lang.* 18.226-8 (1942), argue against him. To me it seems probable that Armenian is not an Anatolian language.

8. There are traces of the IH perfect tense in the Hittite *hi*-conjugation, the Hieroglyphic Hittite and Luw. pret. 1 sg. ending *-(h)ha*, the Lyc. pret. 1 sg. in *-χα -ga* (cf. *oīδα*, Goth. *wait* ‘I know’; Goth. *gam* ‘I came’).

Too little is now known about the Anatolian languages other than Hittite for a detailed comparison of them to be profitable. The comparative grammar of Hittite still means essentially the comparison of Hittite with the Indo-European languages. We shall bring in the other Anatolian languages whenever that seems advisable, but, for the most part, we need not even mention them. There is no doubt that Hittite is set off from the other five Anatolian languages by the change of *t* to *ts* before original *i̯* or *e̯* [82b, c] and by the redistribution of active verb forms into two conjugations [231].

15. The evidence set forth in IHL 23-9 (1942) to show that Hittite and Proto-Indo-European are both descended from a common ancestor, which we may call Proto-Indo-Hittite, still seems conclusive. The theory gets powerful support from the clear-cut contrast between Proto-Anatolian and Proto-Indo-European that we have just been discussing. I have cited the IE feminine in *-ā* beside masculine adjectives in *-os* and the feminine in *-trī* beside masculine agent nouns in *-tēr* and *-tōr* as necessarily developed in pre-IE.<sup>25</sup> Similarly, the scanty IH system of tenses and modes must have been filled out in pre-IE times.<sup>26</sup>

We may set up a “family tree” as follows.



<sup>25</sup> Lang. 23.381 (1947).


<sup>26</sup> I prefer to put it this way rather than as Kerns and Schwartz did in their brilliant article on Multiple-Stem Conjugation: an Indo-Hittite Isogloss, Lang. 22.57-67 (1946). It now seems necessary to confine the ‘*hi*-conjugation’ to Hittite and to assume for Proto-Anatolian as well as for Proto-Indo-Hittite a perfect tense much like the Greek or the Sanskrit. The prehistory of other parts of the verb system has been further complicated by other recent discoveries.

## THE SYSTEM OF WRITING

16. All our Hittite documents from Boğazköy were written during the two and a half centuries preceding 1200 B.C., although a number of them are copies of texts composed several centuries earlier. One of the earliest of these is the Anittas text (2 BoTU 7, 30), which can be dated about the nineteenth century B.C. since it contains the names of two persons who appear also in the 'Capadocian tablets' of that time, namely, *A-ni-it-ta-aš* and his father *Pi-it-ḫa-na-a-aš*, kings of *Ku-uš-ša-ar*.<sup>1</sup>

17. As noted above [4, 6], Hittite writing, during the more than two centuries when we can observe it, was under the constant and powerful influence of Akkadian, the great international language of that age. Many scribes must have been familiar with both languages, and they composed treaties and other Boğazköy documents in Akkadian. They introduced the strange practice of starting many Hittite texts with a few words or lines of pure Akkadian [4, 6]. The apology of Hattusilis III contains no Hittite word or morpheme before the fifth line. These same scribes must have translated into Akkadian some important historical documents such as the proclamation of Hattusilis I. No less important were their services in translating literary works from Akkadian into Hittite, as, for example, the Gilgamesh epic.<sup>2</sup>

The system of writing employed in our Hittite texts is fairly homogeneous. No doubt there were once texts with relatively few ideograms and perhaps resembling in other ways the kind of writing that we know in Hurrian texts. Quite possibly some of these will some day be discovered. At present we have to describe only one kind of writing.

18. Of very great assistance in the first deciphering of Hittite texts were the Sumerian ideograms. The sign  means 'hand', no matter what language is being written; we transcribe it ŠU in a Hittite text, although we know that it was read by a case form of the Hittite word *ki-eš-šar ki-eš-ša-ra-aš*. Numerals are usually indicated by wedgcount, and, since we have but scanty knowledge of the Hittite words involved, we shall transcribe them by Arabic numerals:

Y = 1, YY = 2, < = 10, << = 20. A good many nouns are preceded by de-

<sup>1</sup> On these men, see Julius Lewy, RHA 3.1-8 (1934).

H. G. Güterbock, ZA NF 10.139-214 (1938), doubts that our text can be a copy of a composition in Hittite by Anittas himself; he thinks it unlikely that Hittite writing can be so early. But see Kurt Bittel, Grundzüge der Ur- und Frühgeschichte Kleinasiens 34 f. (Tübingen, 1945).

<sup>2</sup> Fragments collected and translated by Friedrich, ZA NF 5.1-82 (1929)

terminatives or classifiers. Sumerian GIŠ 'tree, wood' is used for Hitt. *ta-ru* 'tree'; sometimes it is followed by a phonetic complement (GIŠ-*ru*). The same word often stands before an ideogram or a word designating an object made of wood, in which case we write the transcription above the line to indicate that it is not to be spoken or translated (GIŠ<sup>1</sup>DAG = GIŠ<sup>1</sup>DAG-iš = GIŠ<sup>1</sup>*ha-al-ma-šu-ut-ti-iš* 'throne').

Sumerian has plural signs MEŠ and HIA which may be appended to Sumerian words (ŠU.MEŠ or ŠU.HIA 'hands'). These are occasionally written after Akkadian or Hittite nouns (e.g. *up-pi-eš-šar-ri*-HIA 'gifts', *hal-ku-eš-šar*-HIA). A number of the ideograms in Hittite texts consist of several Sumerian words each, e.g. DUMU.LUGAL 'king's son, prince', SAL.LUGAL 'queen', LUGAL.GAL 'great king', GAL.LU.MEŠ<sup>1</sup> BANŠUR 'chief of the table-men'.

19. Phonetically written Akkadian words are frequently used in Hittite texts in the same way as Sumerian words, and they may appear in any inflectional form. For ŠU we find QA-TU or QA-A-TU or QA-TUM (nom.), QA-TI or QA-A-TIM (gen.), QA-TA or QA-TAM (acc.), or QA-AT (construct state, the form used with a possessive pronoun or an adnominal genitive). Inflection of an Akkadian noun may be indicated by placing a phonetic complement after a Sumerian word sign; ŠU-TI = QĀTI. Hittite phonetic complements are used after Sumerian ideograms (LUGAL-uš = *ha-aš-šu-uš* 'king') or after a combination of ideogram and Akkadian phonetic complement (DINGIR-LUM-iš 'god'). It is not necessary for the Akkadian inflectional complement to agree in case with the final Hittite phonetic complement; EL-LAM-aš 'free man' functions as nominative although the Akkadian word is accusative; DINGIR-LIM-ni = *ši-ú-ni* 'to the god' is a dative, although no such case exists in Akkadian. It is possible to employ Akkadian prepositions to indicate which Hittite case underlies the Sumerian or Akkadian word that stands in the text; ŠA is a sign of the Hittite genitive; ANA 'to', AŠŠUM 'for', INA 'in, into', ITTI 'with, to',<sup>3</sup> of the dative; INA 'from' (e.g. KUB 11.35.1.13), IŠTU 'from', of the ablative; IŠTU 'with', QADU 'with', of the instrumental. A Hittite case form sometimes agrees with an Akkadian prepositional phrase; e.g. *ki-e-el* ŠA KUR.KUR-TIM 'of these countries', *tu-uk* A-NA<sup>1</sup> MA-AD-DU-WA-AT-TA 'to you, Madduwattas'. If two or more Akkadian nouns stand in apposition, the preposition is written only before the first.

In the plural the Akkadian masculine noun ends in -Ū (nom.), -Ī (acc. and gen.); the masculine adjective in -ŪTUM (nom.), -ŪTIM (acc. and gen.); the feminine in -ĀTUM (nom.), -ĀTIM (acc. and gen.). The Hittite scribes frequently write the forms in -TIM for the nominative. As a result of writing -TIM after an ideogram (e.g. KUR.KUR-TIM = MA-TA-A-TIM = *ud-ne-e* 'countries'), the Hittite scribes came to treat the syllable as equivalent to Sumerian MEŠ. Hence we find LU.MEŠ<sup>1</sup> SANGA-TIM = *ša-an-ku-un-ne-eš* 'priests', BE-LU-TIM and BE-LU.MEŠ-TIM = *BE-E-LU-U* = *iš-ḫé-eš* 'lords'.

20. The Akkadian possessive suffixes are appended to nouns in the construct state; the following appear more or less frequently in Hittite documents: -I

<sup>3</sup> Sometimes ITTI seems to represent the Hittite dative with *kattan*. See Götze-Pedersen MS 52 (1934); Sommer, AU 38 (1932).

-YA 'my', -KA -KI (fem.) 'your', -ŠU 'his', -ŠA 'her', -NI 'our', -KUNU 'vester', -ŠUNU 'their'. The feminines are rare, the corresponding masculines being used instead. There is some confusion between -ŠU and -ŠUNU; the former is sometimes used with a singular noun to mean 'their', and the latter with a plural noun to mean 'his'. An Akkadian construct state ending in a dental stop or *S* combines with a possessive suffix with initial *š* to form *TS*, written *Z* or *ZZ*; hence QA-AZ-ZU 'his hand', Ê-ZU = BIT-SU 'his house'. If nouns are written in Sumerian or Akkadian, the possessive is frequently written first in Hittite and afterwards in Akkadian; e.g. *am-me-el* <sup>LU</sup>MU-DI-YA 'my husband', *tu-e-el* DUMU.MEŠ-KA 'your sons' [2.225a].

21. Proper names are sometimes, especially in early texts, declined like other nouns; for the most part, however, they appear in the stem form. This practice can scarcely be ascribed to the studies of grammarians; it must have originated in a preference for names with an Akkadian form. Since Akkadian names frequently end in a vowel, *a*, *i*, or *u*, Hittite datives in -*a* or -*i* and accusatives that had lost final *n* in sandhi so that they showed final -*a*, -*i*, or -*u* could readily serve this purpose. In Akkadian headings to Hittite texts [17] proper names always appear in the stem form, and the same practice was often followed when a proper name occurred in a Hittite context.<sup>4</sup>

22. Akkadian verb forms are somewhat less freely used than nouns in Hittite texts. The singular of the preterit is relatively common, as in the following five verbs (cited by the infinitives):

Infinitive	ŠAPĀRU	ŠABĀTU	QABŪ	NADĀNU	EDŪ
	'send'	'take'	'say'	'give'	'know'
1.	AŠPUR	AŠBAT	AQBĪ	ADDIN	
2.	TAŠPUR		TAQBĪ		
3.	IŠPUR	IŠBAT	IQBĪ	IDDIN	IDĪ

Other forms occur here and there; e.g. INAKKIZŪ 'they cut off' (from NAKĀSU); 3 sg. permansive QATI 'it is ended' (from QATŪ); imper. ŠUPUR 'send!'; 3 sg. pres. UŠKĒN 'he bows down' and 3 pl. UŠKENNŪ.

23. The cuneiform syllabary shows many variations during its long history and its extension over nearly all of western Asia. I shall list below merely the signs used in writing phonetically Hittite words during the 250 years that our records cover. In general I shall employ the system of transcription described by F. Thureau-Dangin, *Le Syllabaire accadien*, Paris, 1926, although I shall write *ya* where he writes *ia*. Several other variations from his usage will be mentioned in footnotes.

24. Users of the following list should remember that, at the end of a sign, no distinction is made by the scribes between *k*, *g*, and *q*; *p* and *b*; *t* and *d*; I write *ak*, *ap*, and *at*, without mentioning the values *aq*, *ag*, *ab*, and *ad*, which

<sup>4</sup> H. G. Güterbock, JAOS 65.248-57 (1945), tries to establish the existence of a vocative, usually identical with the stem, from Hittite proper names, and he considers this the source of the usage just described. A serious weakness of his argument is that there is little, if any, other evidence for such vocatives in the related languages. Furthermore, the proper names in Hittite texts are largely borrowed words.



are used in transcription before signs beginning with *g*, *q*, *b*, and *d*, respectively. The accents and sub-numerals serve merely to distinguish the signs from one another. Hittite contained no 'emphatics'; the sign *qa* is employed, exactly as are *ka* and *ga*, to write a velar stop.

Table of Signs in the Hittite Syllabary

1. <i>a</i>	28. <i>gaz</i>	54. <i>kat</i> , <i>kit</i> <sup>8</sup>
2. <i>aḫ</i> , <i>iḫ</i> , <i>uḫ</i>	29. <i>gi</i>	55. <i>ki</i>
3. <i>ak</i>	30. <i>gul</i>	56. <i>kir</i> , <i>piš</i>
4. <i>al</i>	31. <i>gur</i>	57. <i>kiš</i>
5. <i>am</i>	32. <i>ḫa</i>	( <i>kit</i> <sub>2</sub> : see <i>kat</i> )
6. <i>an</i>	33. <i>ḫal</i>	58. <i>ku</i>
7. <i>ap</i>	34. <i>ḫar</i> , <i>ḫur</i> , <i>mur</i>	59. <i>kum</i>
8. <i>ar</i>	( <i>ḫaš</i> : see <i>tar</i> )	60. <i>kur</i>
9. <i>aš</i>	( <i>ḫat</i> : see <i>pa</i> )	61. <i>la</i>
10. <i>at</i>	35. <i>ḫé</i>	62. <i>lam</i>
11. <i>az</i>	36. <i>ḫi</i>	63. <i>li</i>
12. <i>ba</i>	37. <i>ḫu</i>	( <i>lik</i> : see <i>ur</i> )
13. <i>be</i> , <sup>5</sup> <i>pīt</i> , <i>pāt</i>	( <i>ḫur</i> : see <i>ḫar</i> )	64. <i>liš</i>
14. <i>da</i>	38. <i>i</i>	65. <i>lu</i>
( <i>daḫ</i> : see <i>túḫ</i> )	( <i>iḫ</i> : see <i>aḫ</i> )	66. <i>ma</i>
( <i>dak</i> : see <i>ták</i> )	39. <i>ik</i>	67. <i>maḫ</i> <sup>9</sup>
15. <i>dam</i>	40. <i>il</i>	68. <i>man</i>
( <i>dan</i> : see <i>kal</i> )	41. <i>im</i>	69. <i>mar</i>
16. <i>dé</i>	42. <i>in</i>	( <i>maš</i> : see <i>pár</i> )
17. <i>di</i>	43. <i>ip</i>	70. <i>me</i>
18. <i>dir</i>	44. <i>ir</i>	71. <i>mi</i>
19. <i>du</i>	45. <i>iš</i>	72. <i>miš</i>
( <i>duḫ</i> : see <i>túḫ</i> )	46. <i>it</i>	73. <i>mu</i>
20. <i>dur</i>	47. <i>iz</i>	( <i>mur</i> : see <i>ḫar</i> )
21. <i>e</i>	48. <i>ka</i>	74. <i>na</i>
22. <i>eł</i> <sup>6</sup>	49. <i>kal</i> , <i>dan</i>	75. <i>nam</i>
23. <i>en</i>	50. <i>kam</i>	76. <i>nap</i>
24. <i>eš</i>	51. <i>kán</i>	77. <i>ne</i>
25. <i>eš</i> <sub>15</sub> <sup>7</sup>	52. <i>kap</i>	78. <i>ni</i>
26. <i>ga</i>	53. <i>kar</i>	79. <i>nim</i>
27. <i>gal</i>	( <i>kaš</i> : see <i>pī</i> )	80. <i>nir</i>

<sup>5</sup> The one valid reason for keeping this value of the sign is that it enables us to avoid having to assume many instances of double *t* for [d] between vowels [53].

<sup>6</sup> Words beginning with the signs *el*, *en*, or *eš* are extremely rare. I can cite only half a dozen instances (all from archaic texts) as against some 450 examples of initial *e-eš*, etc.

<sup>7</sup> This is the sign MEŠ, which functions as a Sumerian plural sign. In Hittite texts such a complex as UKÜ.MEŠ must be read *an-tu-uḫ-še-eš*; consequently MEŠ is sometimes written for *eš* (e.g. *ḫu-u-ma-an-te-eš*<sub>15</sub> 'all', *ku-i-e-eš*<sub>15</sub> 'who', *ḫa-an-ne-eš*<sub>15</sub>-šar = DI-*eš*-šar 'trial').

<sup>8</sup> Götze, Madd. 60, shows that *kat* alternates with *ki-it*.

<sup>9</sup> This sign is employed in a Hittite word in KBo. 3.42.6 and elsewhere.



81. <i>nu</i>	99. <i>ši</i>	118. <i>tum, tu<sub>4</sub></i>
82. <i>pa, ħat</i>	100. <i>šir</i>	119. <i>u</i>
83. <i>pal</i>	101. <i>šu</i>	120. <i>ú</i> ( <i>uḫ</i> : see <i>aḫ</i> )
84. <i>pár<sup>10</sup>, maš</i> ( <i>pát</i> : see <i>be</i> )	102. <i>šú</i>	121. <i>uk</i>
85. <i>pí<sup>10</sup>, kaš</i>	103. <i>šum</i>	122. <i>ul</i>
86. <i>píl</i> ( <i>pír</i> : see <i>ut</i> ) ( <i>piš</i> : see <i>kir</i> ) ( <i>pít</i> : see <i>be</i> )	104. <i>šur</i>	123. <i>um</i>
	105. <i>ta</i> ( <i>taḫ</i> : see <i>túḫ</i> )	124. <i>un</i>
	106. <i>ták, dak</i> ( <i>tal</i> : see <i>ri</i> )	125. <i>up</i>
87. <i>pu</i>	107. <i>tap</i>	126. <i>ur, lík</i>
88. <i>pur</i>	108. <i>tar, ħaš</i>	127. <i>úr</i>
89. <i>qa<sup>11</sup></i>	109. <i>táš</i>	128. <i>uš</i>
90. <i>ra</i>	110. <i>te</i>	129. <i>ut, pír</i>
91. <i>ri, tal</i>	111. <i>tí</i>	130. <i>uz</i>
92. <i>ru</i>	112. <i>tím</i>	131. <i>wa</i>
93. <i>ša</i>	113. <i>tin<sup>12</sup></i>	132. <i>wí<sup>14</sup></i>
94. <i>šaḫ</i>	114. <i>tir</i>	133. <i>ya</i>
95. <i>šal</i>	115. <i>tu</i> ( <i>tu<sub>4</sub></i> : see <i>tum</i> )	134. <i>za</i>
96. <i>šap</i>		135. <i>zé</i>
97. <i>šar</i>	116. <i>túḫ, <sup>13</sup> taḫ, daḫ, duḫ</i>	136. <i>zi</i>
98. <i>še</i>	117. <i>túl</i>	137. <i>zu</i>

25. There are a number of deficiencies in this syllabary for writing Akkadian and still more for writing Hittite. Hittite, like most of the Indo-European languages, had many consonant groups, initial, medial, and final. Normally the syllabary can represent only a single initial or final consonant, and only one or two together within a word. Consequently it must have been necessary to use some signs to represent consonant groups, or to write vowels that were not to be pronounced, or to use vowel signs for consonants, or to leave some consonants unrepresented. All four of these devices were employed; *z* in the table represents *ts*; the 3 sg. pres. *spandi* 'he pours a libation' is an old perf. 3 sg. \**sponde*; it is

<sup>10</sup> The reason given by E. F. Weidner, *Studien zur hethitischen Sprachwissenschaft* 22 f. (Leipzig, 1917), for transcribing in this way rather than *bar* and *bi* has no force, but Hittite scholars have become accustomed to it, and it does no harm.

<sup>11</sup> Hittite and Hurrian have no 'emphatic' phonemes, but they both use the *qa*-sign to write [k] and [g].

<sup>12</sup> This sign sometimes stands for *ten* and has been transcribed *tén*. This seems unnecessary. See Pedersen, *Hitt. u. IE* 120.

<sup>13</sup> The value *túḫ* is not recorded by Forrer or by Thureau-Dangin. It is proved by *tu-uḫ-ša-an-ta* (KBo. 6.3.2.10) beside *túḫ-ša-an-zi* (KBo. 6.3.2.13).

<sup>14</sup> For accentuation, see Sommer, *Bil.* 221. This value of the GEŠTIN sign implies a word for 'wine' beginning *wi*-. C.-G. von Brandenstein, *Hethitische Götter nach Bildbeschreibungen* 53 f. (1943), cites a gen. sg. *wi-ya-na-aš* 'wine' from BO 2621.2.5. That we should read *wi* rather than GEŠTIN here seems to follow from the town name <sup>URU</sup>*Wi-ya-na-u-wa-an-ta*, which the Greeks write *Ouvarda*. The location of the town in southern Anatolia makes it probable that the word *wiyana*- 'wine' is Luwian and that the development of the sign *wi* belongs to the history of the Luwian system of writing.

written *ši-pa-an-ti* or *ši-ip-pa-an-ti*. Such consonant groups as *kw*, *tw*, *sw*, etc., might be written *ku-*, *ku-wa-*, *tu-*, *tu-ú-*, *šu-*, *šu-u-*, etc. (*ku-iš* 'who', *ku-wa-at* 'why', *tu-e-ig-ga-aš tu-ú-i-ig-ga-aš* 'body', *e-šu-en e-šu-u-en* 'we were'). There are three important helps in solving such puzzles.

26. Variant spellings of equivalent or nearly equivalent forms are sometimes very suggestive. The spelling *har-aš-zi* 'he harrows' must be read *harszi* on account of the infin. *har-šu-wa-an-zi*. The three equivalent forms *hi-in-ik-zi*, *hi-in-ga-zi*, and *hi-ik-zi* 'fixes, fastens' can be harmonized as *hinkzi*.<sup>15</sup> Since the ablative usually ends in *z*, we may infer that *Ē-ir-za* 'from the house' is to be read *pirz* rather than *pirza*. Just so the final consonant of the instrumental is *t*, and so *ki-iš-šar-ta* 'by hand' must stand for *kissart*.

27. Etymology often supplies a more or less decisive clue. Certain durative verbs, *az-zi-ik-ki-iz-zi* 'is eating', *ši-pa-an-za-ki-iz-zi* 'is pouring libations', *zi-ik-ki-iz-zi* 'is placing', show a vowel between the two consonants of the suffix *-ske/a-*; we must read, respectively, *atskitsi*, *spantskitsi*, *tskitsi*. An additional reason for reading *ši-pa-an-ti* as *spandi* is its connection with *σπένδω* and Lat. *spondeō*. Ehelolf has shown that *te-ri-ya-al-la* is equivalent to *ta-ri-ya-al-la* and to *3-ya-al-la*; the variation of the first vowel suggests that it is silent, and the fact that the first two syllabic signs spell the stem of the word for 'three' proves that we must read *triyala*.

28. There is a tendency to represent a spoken vowel by a vowel sign or by a vowel preceded in the same sign by a consonant. Hence we might be sure that *kar-ap-zi*, *kar-ap-ta*, *kar-ap-du*, *kar-ap-ta-ri* represented *karpzi* 'he raises', *kapt(a)*, *kaptu*, *kaptari*, even if we had not from the same verb *kar-pa-an-zi* and *kar-pir*. Similar are *har-ak-zi* = *harkzi* 'is destroyed' (cf. *har-ku-e-ni* = *harkweni* 'we are destroyed'), *kar-aš-zi* = *karszi* 'cuts' (cf. *kar-še-ir* = *karser* 'they have cut'), *pār-aḫ-zi* = *parḫzi* 'drives' (cf. *pār-ḫa-an-zi* = *parḫanzi* 'they drive'), *li-in-ik-ta* = *li-ik-ta* = *linkt(a)* 'he swore'. The converse does not hold good; the final vowel of a syllabic sign is frequently to be disregarded; e.g. *ši-pa-an-za-ki-iz-zi* = *spanzkizi*, *ma-ra-ak-ta* = *markt(a)* 'has cut up' (cf. *mar-ka-at-ta-ri*), *wa-la-aḫ-zi* (usually *wa-al-aḫ-zi*) = *walḫzi* 'beats' (cf. 3 pl. *wa-al-ḫa-an-zi*).

29. The Hittites often introduced silent vowels unnecessarily. The 3 sg. pret. *sanḫt* 'petivit', if that is really the form [269], could be written only with silent vowels (*ša-an-aḫ-ta*), but we find also the first singular written *ša-an-aḫ-ḫu-un* as well as *ša-an-ḫu-un*. As we shall see [74, 75], there is a phonemic distinction between *ḫ* and *ḫḫ*, and the latter can be written with the help of the sign *aḫ*. A similar distinction between *d* (written single) and *t* (written double) can be marked only by a prefixed sign at [82]. There remain many double writings of *l*, *m*, *n*, *r* with silent vowels for which no explanation is known.<sup>16</sup>

30. The frequent writing of final *-za* for [ts] (e.g. nom. sg. *ku-na-an-za* 'slain' beside dat. sg. *ku-na-an-ti*) led to difficulties when a word ended in [tsa]. If the particle *-a* 'and, even' was appended to a word in [ts], *-(aš-)ša* was writ-

<sup>15</sup> Some scholars prefer to interpret *hi-in-ga-zi* as a thematic form, but that should be rather *\*hi-in-ki-iz-zi*. For the present it is safer to regard this as merely a variant spelling.

<sup>16</sup> Götze, *Madd.* 41-9 (1928), has suggested that accent may be a factor, but we know nothing about Hittite accent.

ten at the end, e.g. *ku-na-an-za-aš-ša . . . ap-pa-an-za-aš-ša* = *kunanz-a . . . appanz-a* 'both slain . . . and captured' (KBo. 4.4.2.75), *e-eš-ḥa-na-an-za-aš-ša* = *ešhananz-a* 'blood also' (KUB 4.1.2.22), *ir-ma-la-an-za-ša* = *irmalanz-a* 'even ill' (KBo. 5.9.1.16). Just so, the common practice of writing *z* double to denote [ts] between vowels made trouble when it was necessary to write [tsts]; hence *ma-az-za-az-zi* = [mazzi] 'he endures' (KUB 13.4.3.76), *e-iz-za-az-zi* (KUB 13.4.4.40) = *e-iz-za-zi* (KUB 17.28.4.40) = *e-za-az-zi* (KUB 7.1.2.10) = [ezzi] 'he eats', *iš-pár-za-zi* (KBo. 5.9.2.16, 5.13.2.27; KUB 1.1.4.88) = *iš-pár-za-az-zi* (KBo. 4.7.3.32) = [sparzzi] 'he escapes'. Occasionally [tst] was written (-az-)za-aš-ta; *ma-az-za-aš-ta* (KBo. 3.4.2.30, 5.6.1.8, 29) = [mazt] 'he endured', *iš-pár-za-aš-ta* (KBo. 2.5.3.12, 3.38.2.24, 5.8.3.32, 6.28.1.16; KUB 19.49.1.6) = [sparzt] 'he escaped', *ḥa-az-za-aš-ta* (KUB 12.62.1.17) = [ḥazt] 'dried up', *az-za-aš-te-ni* (KUB 1.16.3.34, 48) = [azteni] 'you eat'.<sup>17</sup>

31. In our Hittite texts a space is usually left blank at the end of a word; this is not customary in Akkadian. Enclitics not only have no space before them; they are often orthographically attached to the preceding word (*ku-i-ša* = *ku-iš-ša* = [kwis-a] 'quisque'). That the etymological division was not objectionable in itself is shown by such combinations as *nu-mu-kán*, *nu-wa*, *ma-aḥ-ḥa-an-ma*, where each new word begins with a new character. A word with its enclitics constituted a single unit, and so, if the initial word of a group had a final consonant, this tended to be written with an initial vowel of an enclitic; *man* plus *at* yields *ma-na-at*, *kinun* plus *a* plus *wa* = *ki-nu-na-wa*. Although the initial consonant group of the enclitic pronominal stem *-sma-* *-smi-* is sometimes written *-šum-* (*e-eš-ḥar-šum-mi-it* 'your blood'), it is usually handled otherwise (<sup>TUG</sup>*še-ku-nu-uš-me-it* 'his coat', *nu-uš-ma-ša-at* 'et vos id'). Initial voiceless stops of enclitics are frequently written double by obscuring the word end (e.g. *nu-ut-ták-kán* = *nu + ta + kan*, *nu-ud-du-za* = *nu + tu-za*). Such double writings as *nu-uš-ši* for *nu + si*, *še-ir-ma-aš-ša-an* for *ser + ma + san*, *nu-un-na-aš* for *nu + nas*, present the same problems as doubled *s*, *r*, *l*, *m*, and *n* in the interior of a single word [29].

32. It is not easy to establish the phonemic system of Hittite by comparing the facts of the orthographic system that we have roughly described. We can get powerful help from the related Anatolian and Indo-European languages, but there are numerous difficulties involved in such a process. The first requirement is consistency; it is foolish to attempt any comparison of related languages without setting up a table of phonemic correspondences between the languages treated. If the relationship between the languages is at all involved, as is the case with Hittite [see the 'family tree' in §15], caution must be redoubled. The attempt, however, is necessary if we are to write a comparative grammar of that language. No apology need be offered for the many corrections of HG<sup>1</sup> published less than twenty years ago.<sup>18</sup>

<sup>17</sup> Götze, *Madd.* 126 (1928).

<sup>18</sup> Many distinguished linguists seem to me excessively cautious about publishing a scientific conclusion before it can be finally established. I think that such procedure unnecessarily delays the progress of science. The one requirement is that before a conclusion is proposed, its author must think it through and make it harmonize with the available evidence. No scientific conclusion is final; every one of them should be held subject to immediate revision in the light of new evidence.

The following are the books and articles that I have devoted to the study of the Hittite phonemic system and its history since the publication of the first edition of this grammar: Lang. 13.285-91 (1937); AJP 59.95-7 (1938); Lang. 15.11-19, 145-54 (1939), 16.81-7, 273-84 (1940), 17.1-11, 181-8 (1941); CP 36.356-64 (1941); Lang. 18.181-92, 259-70 (1942); IHL, 1942; Lang. 19.209-20, 293-312 (1943), 20.206-11 (1944). These writings of mine are more important than others to the reader of this book for the reason that they are devoted to working out the consistent system that is given here. Many other articles have contributed also, and references to them will be found on the pages referred to above and also in the discussion to follow. Many conflicting opinions have been supported in print. I have no desire to suppress any of them, but in this book my task is to present a consistent system.

I assume the following system of phonemes for Proto-IH.

Vowels: *e, ē, o, ō, ɐ*<sup>19</sup>

Semivowels: *y, w, r, l, n, m*<sup>20</sup>

Laryngeals:<sup>21</sup> *ʾ, h, x, γ*

Stops: *k, t, p; g, d,*<sup>21a</sup> *g', d', b'*

Sibilant: *s*

**33.** We know too little of the Anatolian languages other than Hittite to set up a phonemic system for Proto-Anatolian. It seems probable that one or two of the laryngeals had been lost, and this had probably made *a* phonemically different from *e* in some words. Quite possibly IH *ɐ* had fallen together with this *a*. We know nothing about vowel quantity in Proto-Anatolian, except what is implied by certain phonetic laws in Hittite.

**34.** In IHL 90, I set up a very complicated phonemic system for Proto-IE; I find no way of simplifying it except perhaps by substituting long (or double) continuants for the pre-aspirated series (*yy* for *hy*, etc.).

**35.** For the Hittite language as spoken by the scribes of about 1300 B.C., I think it probable that the phonemic system was as follows:

Vowels: *a, i, u*

Semivowels: *y, w*

Nasals and liquids: *n, m, r, l*

Laryngeals: (*h*)*h, h*<sup>22</sup>

Stops: *k, t, p; g, d, b*

Sibilant: *s*

**36.** Certain facts seem to indicate a regular alternation between *i* and *y, u*

<sup>19</sup> This is a reduced vowel from unaccented *e* in positions where the total loss of that vowel would have caused inconvenient consonant groups.

<sup>20</sup> These phonemes functioned as syllabics or non-syllabics according to their surroundings.

<sup>21</sup> This class name is used merely for convenience. It is not known that all these sounds were actually laryngeals. *ʾ* was probably a glottal stop. IH *h* may have been similar to Eng. *h*, or it may have been a glottal stop of velar color; all that we are sure of is that it changed a contiguous *e* to *a*. *x* and *γ* were velar spirants, voiceless and voiced, respectively; *x* changed a contiguous *e* to *a*.

<sup>21a</sup> As is well known, the phoneme *b* seems to have been rare in Proto-IE; I can find no evidence for such a phoneme in Proto-IH.

<sup>22</sup> Between vowels, *hh* stands for *x*, so, too, sometimes *h*, especially next a consonant or initial before a vowel. Otherwise *h* stands for *γ*.

and *w*, as if these were allophones of the same phonemes; but apparently *i* and *u* may represent earlier *e* and *o* not alternating with *y* and *w*. Possibly the nearly constant writing of *z* (i.e. *za*, *zi*, *zu*, etc.) for *ts* [87, 88] may indicate that this was a unitary phoneme, but the writing of *-za* and *-az* for final *-ts* in the nominative singular of dental stems [129d] and in the ablative singular beside instrumental singular in final *-t* [137, 138] indicates that here too *s* is a separate phoneme.

37. At the time when the language was first reduced to writing, about the end of the third millennium [5], a somewhat different phonemic system must have prevailed. There was certainly a vowel *e* and perhaps a vowel *o* [43, 59a].

38. In support of the conclusions of the last two paragraphs we must examine in detail the use of the transcription letters, *a*, *e*, *i*, *u*, *ú*, *y*, *w*, *ḫ*, *k*, *g*, *q*, *t*, *d*, *p*, *b*, *z*, *š*, *r*, *l*, *n*, *m*, and of their combinations.

#### *a*

39. Hitt. *a* may be written by the vowel sign *a* or by any one of 61 syllabic signs or by certain combinations of these. The vowel sign is sometimes written before or after an open syllabic sign with *a* when there is no apparent need for such an orthography, so, regularly *da-a-i* 'he places, he takes' in hundreds of examples, but *pí-e-da-i* beside *pí-e-da-a-i* 'he carries off'; *iš-ḫa-a-aš* or *iš-ḫa-aš* 'master' (both orthographies frequent).

The *a*-sign is the only vowel sign that appears twice in succession, e.g. *a-a-ri* 'is hot', *a-a-an-za*<sup>23</sup> 'hot'; the consistent double writing of the *a* must indicate two syllables, and the IE root *ai-* *aidh-* 'burn, shine' shows that the semivowel *-y-* must be assumed; it does not necessarily follow that intervocalic *y* persisted as such in Hittite [61a].

In inherited words Hitt. *a* is the regular development of IH *ǝ* [58, 59]; it comes also from IH *e* before *r* and a consonant [56], and from IH *ɔ* [60]. Hitt. *a* is the regular development of IH *he* or *eh* [76] and also of the vowel of *xe* or *ex*, while the consonant is written with *ḫḫ* or with *ḫ* initial or next a consonant [74]. Hitt. *a* is often inserted orthographically to make possible the writing of a consonant group [25-28].

Hitt. *a* thus corresponds to IE *ǝ*, *e* (before *r* and a consonant), *ǝ*, *e*, or *ɔ*.

#### *e*

40. There is a vowel sign *e* and there are 12 syllabic signs which contain *e*, and very frequently the same phoneme is written with the vowel sign *i* or with one or two of the 38 syllabic signs containing *i*.<sup>24</sup> A few common words are written with *e* almost consistently, as, for instance, several forms of *es-* 'be'

<sup>23</sup> Götze-Pedersen, MS 31 and fn. 1, record a variant *a-ra-an-te-it* (KUB 10.89.1.21) and conclude that initial *a-a-* must represent two syllables. I proposed, Lang. 14.70 (1938), cf. IHL 45, 61, that we assume pre-Hitt. *aya*. Delitzsch, Ass. Gramm.<sup>2</sup> §§19-23, records this value for *a-a-* in Akkadian. Against the possibility of reading a cuneiform vowel sign as glottal stop plus vowel in Hittite, see Sturtevant, Lang. 18.181 fn. 2 (1942).

<sup>24</sup> Some scholars prefer to transcribe the same sign sometimes *iḫ* and sometimes *eḫ*, etc., but it seems simpler to introduce a different transcription only to represent a different sign; we write *te-iḫ-ḫi* and *pí-iḫ-ḫi*, since there is only one sign for *iḫ* or *eḫ*.

(*e-eš-mi*, *e-eš-zi*, *e-šu-un*, *e-eš-ta*, *e-šu-en*, *e-še-tin*, *e-še-ir*, *e-eš-du*). On the other hand, there are relatively few indications of the historic value of the front stem vowel of thematic verbs. Such a form as *lu-uk-ki-iz-zi* 'he kindles' could be written with *e* only by inserting the vowel *e* between *ki* and *iz*, and that is rarely done (examples are *kap-pu-u-e-iz-zi* 'he counts', 2 sg. *kap-pu-u-e-ši*). Some stem-final consonants make it possible to do a little better, and so we find (KUB 12.58.1.30) *wa-aš-še-iz-zi* 'he clothes'. In the second singular preterit the vowel *e* is written more frequently than elsewhere, no doubt because the sign *eš* is available just there; e.g. *da-aš-ki-eš* 'you were taking', *zi-ik-ki-eš* 'you were placing', *ha-at-ra-a-eš* 'you wrote', *tak-šu-la-a-eš* 'you made peace'.<sup>25</sup>

It is difficult to explain such spellings as *šu-ú-i-iz-zi* instead of *šu-ú-e-iz-zi* 'presses out', or as *pí-di* = *pí-e-di* = *pí-e-te*, dat. of *pí-e-da-an* 'place': *πῆδον* on the supposition that the language had separate phonemes *e* and *i*.<sup>26</sup> Still more conclusive is the occasional writing of *i* and *e* in the same syllable (*ku-i-e-da-ni*—KUB 6.46.3.50, 61; *ši-i-e-el*—KUB 1.16.2.47; *i-e-eš-na-aš*—KUB 17.18.2.31). No one with a clear notion of the value of *i*, *e*, *en*, and *in* could have written *ku-i-en-zi* (KBo. 3.34.2.17); and one who understood *ti*, *te*, *i*, and *e* could not have written *ti-e-it* (KBo. 3.34.2.19). With these two forms, contrast *ti-i-íl* (KBo. 3.36.1.24) and *te-íl* (KBo. 3.34.2.4, 3.36.1.14). At the time our texts were composed (ca. 1300 B.C.) *e* and *i* represented a single phoneme, but when Hittite was first reduced to writing they were distinct, and in many common words the distinction was preserved in the traditional spelling.<sup>27</sup>

Hitt. *e* comes from original *e* [56], *ē* [57], or a diphthong with short prior element followed by *y* [61b]. There is no cogent evidence for a difference in quality or quantity of *e* resulting either from the origin of the phoneme or from its position in the word.

#### a/e

41. Variation between *a* and *e* in a given morpheme suggests ablaut; occasional first and second plural endings *-wani*, *-mani*, *-tani* beside regular *-weni*, *-meni*, *-teni* may be due to some alternation of vowels in IH. I have never seen a secondary ending *\*-wan* or *\*-man*, and *-tan* is rare, but such forms may be comparable to the Sanskrit secondary endings *-va*, *-ma*, and *-ta*, if these represent IE *-wŋ*, *-mŋ*, and *-tŋ*.<sup>28</sup> Similarly, the variation between radical *e* in singular forms, as *e-eš-zi* 'he is' and *e-it-mi* 'I eat', and *a* in corresponding plural forms, as *a-ša-an-zi* 'they are', *a-tu-e-ni* 'we eat', and *a-da-an-zi* 'they eat', must reflect the IH difference of ablaut between the two numbers [60]. Curiously opposed to this pattern is that of the IH-IE perfect with *o* in the singular and *ē* in the plural; Goth. *gam qamt gam*, *qēmum qēmub qēmum*; Lat. *vēnī*<sup>29</sup> (with *ē* generalized in the perfect). Several Hittite *hi*-conjugation verbs follow a

<sup>25</sup> Götze, Tunn. 44 fn. 132 (1938); Sturtevant, Lang. 18.181-8 (1942).

<sup>26</sup> The explanation offered by Pedersen, Hitt. u. IE 5 f., is good as far as it goes.

<sup>27</sup> See Sturtevant, Lang. 18.181-6 (1942).

<sup>28</sup> In Lang. 23.379 (1947), I traced Hitt. *-tan* to IH *-tŋ*, but I should rather have written *-tbn*; see [63, 65].

<sup>29</sup> Sommer, Hdb. d. lat. Laut- u. Formenlehre<sup>2</sup> 550 (1914), Bil. 101 and fn. 2. Occasional forms like *še-ik-ti* and *še-ik-ta* must be due to analogy.

similar pattern, except that we know nothing of vowel quantity in Hittite; e.g. *ša-ag-ga-aḫ-ḫi* 'I know', *ša-ak-ti* 'you know', *ša-ak-ki* 'he knows', *še-ik-ku-e-ni* 'we know', *še-ik-te-ni* 'you know', *še-ik-ki-ir* 'they knew' [233].

Hittite spellings with *e* are of the utmost importance for the etymologist. It is fortunate that an active tradition preserved these records for us.

*i*

**42.** Besides the vowel sign *i* there are 38 syllabic signs containing *i*. Although these signs are frequently used for *e* [40, 41], the converse is not true; the use of *e*-signs to denote *i* is altogether exceptional. Written *e* occurs occasionally in the nominative and accusative singular of *i*-stems (e.g. *a-ra-u-wa-an-ni-eš*, *ki-iš-ri-eš*, *lu-li-mi-eš*, *šal-li-eš*, *ḫal-li-en*, *dam-pu-pi-en*, *ú-e-še-in*). Besides countless examples of *ku-iš* and *ku-in* we find *ku-i-e-ša-aš ku-iš* (KBo. 5.3.1.14), *ku-i-e-ša-aš* (KBo. 5.3.2.33), *ku-e-iš-ki* (KUB 14.14.2.18). These forms are further evidence for the change of *e* to *i* after the Hittite language began to be written.

Hitt. *i* comes from IH *y* in its syllabic value, and, through early Hitt. *e*, from IH *e* or any diphthong in *y* after a short vowel.

*u*

**43.** Hittite employs two vowel signs that are transcribed *u* and *ú*. Certain scholars have held that the former stood for *o* and the latter for *u*, but a careful examination of the actual use of the two signs and of the various open syllabic signs with initial or final *u* fails to disclose any clear evidence in favor of such a distinction.<sup>30</sup> On the contrary, we find many such pairs as *pal-u-eš-kán-zi* (KUB 25.1.6.30) : *pal-ú-e-eš-kán-zi* (KUB 25.1.5.16), *ḫar-u-e-ni* (KUB 14.16.3.33) : *ḫar-ú-e-ni* (KUB 7.59.2.10), *pa-i-ú-u-en* (KBo. 3.60.3.11) : *pa-a-i-ú-en* (KBo. 3.45.1.8), *ku-u-uš* (passim) : *ku-u-ú-uš* (KUB 14.14.2.31), *ḫé-e-u-uš* (KUB 19.50.4.27) : *ḫé-e-ú-uš* (KUB 19.14.1.9), *a-ni-u-ur* : *a-ni-ú-úr* (KUB 5.6.2.52, 59).

Both *u* and *ú* frequently stand for *w* either alone or with the help of another sign; e.g. *pa-a-u-ar* (KBo. 1.35.4) 'go', *pa-a-u-en* (KUB 18.29.4.21) *pa-i-ú-u-en* (KBo. 3.60.3.11) 'we went'; from *wa-a-tar* 'water' we get gen. *ú-i-te-na-aš* (KBo. 3.21.2.22), abl. *ú-e-te-na-az* (KUB 1.13.2.40, etc.), inst. *ú-wi-te-ni-it* (KUB 13.3.2.26).

Hitt. *u* comes from the syllabic allophone of IH *w* or from a diphthong consisting of *w* after a short vowel. Whether *u* ever represents IH *ō* is not certain; the question will be considered [59a].

*y*

**44.** The syllabic sign *ya* consists of the sign *i* plus the sign *a*. Not infrequently *ya* is preceded by *i*; e.g. *ḫu-u-ya-an-zi* = *ḫu-u-i-ya-an-zi* 'they run', *ne-ya-an* (KUB 29.7.2.50) = *ne-i-ya-an* (KUB 29.11.2.9) 'led', *ti-ya-u-e-ni* (KBo. 4.4.4.47; KUB 14.15.3.38) = *ti-i-ya-u-e-ni* (KBo. 4.4.4.35; KUB 14.16.3.6) 'we place'. It is also possible to omit *ya* from such spellings; e.g. *ne-ya-ri* (passim) = *ne-e-a-ri* (KBo. 3.41.2.12; KUB 2.4.4.20); *ne-ya-an-ta-ti* = *ne-an-ta-ti*.

<sup>30</sup> See Sturtevant, Lang. 18.186-92 (1942).









In Lang. 19.209-20 (1943), Sturtevant and George L. Trager discussed these and other spellings that alternate with them and reached the conclusion that by the time when our texts were written early Hitt. *e*, *ye*, and *eye* had all become *i/y*. Therefore, of the spellings of the 3 sg. of *tiya*- 'stand', *ti-iz-zi* [titsi] is the regular development from traditional *ti-i-e-iz-zi*. The commonest form, *ti-ya-(az-)zi*, is due to the analogy of the 3 pl. *ti-(ya-)an-zi* and other forms with original *o*.

In a few words *i* before other vowel signs than *a* stands for *y*. Particularly clear are the words *i-ú-kán* (KBo. 3.41.2.6), *i-ú-ga-an* (KUB 7.8.2.8, 7.11.2), *i-ú-ki* (KUB 13.5.2.21) 'yoke', *i-ú-ga-aš* (KBo. 6.3.3.27, 31, etc.) 'yearling'; *ta-a-i-ú-ga-aš* *da-a-i-ú-ga-aš* 'two years old', etc. Another case appears to be *i-e-eš-šar* (KUB 24.13.2.24) 'magic performance'.<sup>31</sup> Possibly the interchange of *ú-i-e-eš-ki-iz-zi* and *ú-i-ya-iš-ki-mi* (VBoT 24.3.35 and 4.14) 'is inviting, am inviting' may point to a time when *wiyes*- alternated with *wis*-; both orthographies in this text probably denote the latter.

Initial *i-ya-* should probably be interpreted as [ya] in all archaic texts,<sup>32</sup> although the *ya-* may have alternated with *iya-* according to the final of the preceding word. Such sub-phonemic alternation was probably regular in the interior of the word at all periods, but we have no means of determining the details; cf. *an-tu-u-ri-ya-aš* (KUB 8.75.1.16) = *an-dur-ya-aš* (ib. 12) 'within'; *na-aḥ-ša-ri-ya-an-zi* (KBo. 5.6.3.6) = *na-aḥ-šar-ya-an-zi* (KUB 24.6.2.8) 'they fear'; *u-i-ya-nu-un* (passim) = *u-ya-nu-un* (KUB 14.3.2.58) 'I sent'; *ḫu-u-i-ya-mi*, *ḫu-u-i-ya-ši*, *ḫu-u-i-ya-an-za*: *ḫu-u-ya-zi* (KUB 14.3.3.51), *ḫu-u-ya-an-zi* (KUB 10.28.1.6), *ḫu-ya-an-zi* (KBo. 5.6.2.34; KUB 2.3.2.19), *ḫu-u-ya-an-te-eš* (KUB 11.35.1.21).<sup>33</sup>

IH *y* after a tautosyllabic short vowel yielded Hitt. *e*; after a tautosyllabic long vowel it yielded Hitt. *ai* [61c].

#### w

45. In Hittite texts the syllable *wa* is frequently written with the sign  which more commonly means *pi* in Akkadian texts of similar or later date. This sign and its variants  *wa<sub>a</sub>*,  *wa<sub>e</sub>*,  *wa<sub>i</sub>*,  *wa<sub>u</sub>*, and  *wu<sub>u</sub>* appear in Hurrian texts and also in Hattic, Luwian, and Palaic, but the several composite signs are not found in Hittite documents. The elimination of them was probably due to the Akkadian scribes who remodeled Hittite writing in the fifteenth and fourteenth centuries [6].

The use of the GEŠTIN sign in the syllabic value *wi* occurs in Hurrian, Hattic, Luwian, and Hittite texts. We have found some reason for thinking that the source of the new value was the Luwian word *wiyana* 'wine' [24, fn. 14], but the Hittite word for 'wine' may well have had the same initial syllable.

<sup>31</sup> Sturtevant, JAOS 63.3 (1943).

<sup>32</sup> Hrozný, SH vii and passim.

<sup>33</sup> Cf. other suggestions—wrong in my opinion—in Götze, Madd. 60 fn. 3 (1928); Friedrich, ZA NF 5.47 fn. 1, 51 fn. 1 (1929).



The use of this sign was discussed by Ferdinand Sommer, BoSt. 4.12-18, in connection with the word *na-a-ú-i* = *na-a-wi* 'not yet'. Another illustration is furnished by the spelling of the name of the author of VBoT 24, <sup>SAL</sup>A-AN-NI-Ú-I-YA-NI = <sup>SAL</sup>A-AN-NI-WÍ-YA-NI.

There were four ways of writing *w* initial or after a vowel, namely, *wa*, *wí*, *u*, and *ú*. Very often one of the vowel signs is prefixed to one of these syllabic signs, so that *w* is written double; e.g. *a-aš-ša-u-wa-aš*, gen. sg. of *a-aš-šu-uš* 'good'; *ú-wí-te-na-aš*, gen. sg. of *wa-a-tar* 'water'; *ú-wa-aḥ-nu-wa-ar* (KBo. 3.5.4.30) = *wa-aḥ-nu-u-wa-ar* (KUB 1.11.1.9) 'a turn'. After a consonant, *w* is frequently represented by the final *u* of a syllabic sign; e.g. *ku-iš* 'who', *ku-ít* 'what', *ku-at* 'why'. Here also the *w* is frequently doubled; e.g. *ku-wa-at* 'why', *tu-u-ig-ga-aš* = *tu-e-ig-ga-aš* 'body'. A triple writing of *w* is not uncommon, at least in the latest period of Hittite writing; e.g. *ḥa-ni-iš-šu-u-wa-ar* (KUB 7.13.1.11), *ḥa-ni-eš-šu-u-wa-an-zi* (KUB 29.1.3.29), *kar-pu-u-wa-ar* 'a mustering', *e-šu-u-wa-ar* (KBo. 1.42.1.7 f.) 'ṛò élvai'. Probably the extraordinary frequency of the pleonastic writing of *w* indicates the dissatisfaction of the Akkadian scribes with all the expedients for writing this consonant.

**46a.** Pre-IH syllabic *w* + consonantal *w* became IH *wm* [69], and so Hittite did not inherit *uw* at all. It is not necessary, however, always to interpret *u-wa*, *ú-wí*, etc., as equivalent to *wa*-, *wí*-, etc. The sentence initial *nu-wa* consists of sentence connective *nu* plus enclitic particle *-wa*. The 3 pl. *wa-aḥ-nu-an-zi* = *wa-aḥ-nu-wa-an-zi* 'they turn' stands for [waḥnwanzi], and the corresponding verb. n. *wa-aḥ-nu-wa-ar* = *ú-wa-aḥ-nu-wa-ar* should be read [waḥnwar], but the sup. *wa-aḥ-nu-ma-an-zi* = *wa-aḥ-nu-um-ma-an-zi* shows the regular change of *uw* to *um* [69]. In many words it is hard to decide whether to read *w* or *u*; e.g. *a-aš-šu-wa-aš* and *aš-šu-ú-i* from *a-aš-šu-uš* 'good', *pár-ku-e-eš-zi* 'he is acquitted', and *pár-ku-u-eš-šu-un* 'I was acquitted'. We prefer the shorter form in general.<sup>34</sup>

**46b.** The vowel signs *u* and *ú* sometimes stand where we might expect *wa* or *wí*; e.g. *an-na-ú-li-iš* (KUB 14.3.2.14) = *an-na-wa-li-iš* (KUB 14.3.4.56) 'cousin', *a-ú-ri-iš* (KUB 14.17.3.22) 'outpost': gen. sg. *a-ú-wa-ri-ya-aš* (KUB 26.17.2.5), *šu-ú-iz-zi* (KBo. 6.2.4.48; 3.4.58) = *šu-wa-(a-)iz-zi* (passim) 'gives as security', *ú-ra-a-nu* (KUB 12.28.8) = *wa-ra-a-nu* (KUB 17.12.3.5) 'let it burn', *ú-ri-wa-ra-an* (KUB 17.10.3.22) = *wa-ri-wa-ra-an* (BO 551.2.4) 'burning',<sup>35</sup> *ḥa-at-ra-u-ni* (KUB 14.1.2.36) 'we write': *a-ri-ya-u-e-ni* 'we inquire by divination', *ka-ru-ú-li-in* (KUB 13.11.1.7) = *ka-ru-ú-i-li-in* (KBo. 6.3.3.13) 'former', *ú-wa-ak-ki-iz-zi* (KUB 14.4.3.20) = *ú-e-wa-ak-ki* (KBo. 5.2.1.52) 'he demands'.

**46c.** Certain other alternations, together with the above, have suggested to various scholars<sup>36</sup> an actual contraction of *uwa* and *uwe* to *u*; e.g. *ul-ki-eš-ša-ra-aḥ-ḥi-ir* (KBo 3.34.2.32) 'they made expert': *wa-al-ki-iš-ša-ra-aḥ-ḥi* (KBo. 6.26.4.30 and KUB 13.14.2.7) 'he makes expert', *ša-an-ḥu-un-zi* (KBo. 4.2.1.11) = *ša-an-ḥu-wa-an-zi* (KUB 9.25.1.4) 'they roast', *ša-an-ḥu-un-da* (VBoT 24.1.17, 2.8) = *ša-a-an-ḥu-u-wa-an-ta* (KBo. 4.2.2.29) 'roasted', *pár-ku-uš-zi* (KUB

<sup>34</sup> Sturtevant and Trager, Lang. 18.259-70 (1942).

<sup>35</sup> Sommer, KfF 1.346 fn. 1 (1930).

<sup>36</sup> Götze, Madd. 137 f.; Friedrich, Vertr. 2.42 fn. 2, 92, 167; Sommer, AU 134; Émile Benveniste, RHA 1.203-8 (1932).

8.2.2.8) = *pár-ku-iš-zi* = *pár-ku-e-ēš-zi* 'he acquits', *hur-ta-aš* (KUB 22.70.1.8) = *hu-wa-ar-ta-aš* (KUB 22.70.1.86) 'he cursed', *la-hu-uh-ḫi* (KUB 7.1.1.30) 'I pour': *la-hu-(u-)wa-a-i* 'he pours', *an-tu-uh-ša-aš* = *an-lu-uh-ḫa-aš* = *an-tu-wa-aḫ-ḫa-aš* 'man'. Whatever the true explanation of these forms may be, it is unlikely that they all show such contraction as has been suggested. The material evidently belongs in several different categories. A frequent explanation is the one first suggested; *u* and *ú* stand for *wa* and *wí*, perhaps in some cases from a careless failure to write a vowel sign; e.g. *ḫa-at-ra-u-ni* for *ḫa-at-ra-u-e-ni*.

46d. Occasionally *m* is written where we might expect *w*.<sup>37</sup> Examples are: *ar-ru-ma-an-zi* (KBo. 3.5.1.23) = *ar-ru-wa-an-zi* 'they wash', *iš-ḫar-nu-ma-iz-zi* (KBo. 5.1.1.26) 'he makes bloody': *e-ēš-ḫar-nu-ut* (KUB 14.1.2.18), acc. pl. *i-da-la-mu-uš* (KUB 7.53.3.17, etc.), beside *i-da-a-lu-uš* 'bad', *ki-e-la-mu-uš* (HT 1.1.17 = KUB 9.31.1.24) = *ki-e-la-u-wa-aš* (HT 1.1.19), *pár-ga-mu-uš* (KUB 12.63.1.30) = *pár-ga-u-uš* (ib. 25), *wa-aḫ-nu-ma-a[n-za]* (KUB 1.11.4.24) = *wa-aḫ-nu-wa-an-za* 'turning'. This practice may have some connection with the IH change of *w* to *m* [69] but is also perhaps partly due to the scribes' familiarity with the Akkadian alternation between *W* and *M*, as in *AWELU* = *AMELU* 'man'.

46e. IH *w* after a tautosyllabic short vowel yielded Hitt. *u*; after a tautosyllabic long vowel it yielded Hitt. *au* [62c].

#### Pleonastic Vowels

47. In Akkadian, vowels are frequently written double (*Ū-UL* 'not', *BE-E-EL* 'lord'). A similar usage is characteristic of Hurrian writing, including the Mitanni letter. In Akkadian writing an extra vowel sign may indicate a long vowel, but in Akkadian texts from Boğazköy the double writing of short vowels is unusually frequent. There is therefore no reason to infer vowel length from the insertion of an extra vowel sign in Hittite words.<sup>38</sup> Hitt. *e-ēš-zi* is the constant spelling of the word for 'is', which must be identified with Skt. *asti*, *ἔστι*, Lat. *est*; *iš-ḫa-a-aš* 'master' corresponds to the Lat. *o*-stem *erus*; *gi-e-nu* 'knee' goes with Lat. *genū*; *pí-e-da-an* 'place' with *πέδον*; *ḫa-an-ti-i* 'in front' with Skt. *anti*, *ἄντι*, Lat. *ante*, etc. Especially significant are inconsistent spellings such as *hu-u-la-li* = *hu-la-a-li*, *i-da-a-la-wa-an-ni* = *i-da-la-a-u-wa-an-ni*, *lu-ú-lu* = *lu-lu-ú*, *da-a-ma-uš* = *da-ma-a-uš*, *ḫa-an-da-a-an-ta-tar* = *ḫa-an-da-an-da-a-tar*. Surely no one will want to read four long vowels in second, third, fourth, and fifth places in *i-da-a-la-a-u-e-ēš-te-e-ni* (KBo. 5.4.2.21). Under these circumstances it is the part of caution to draw no conclusions about Hittite vowel quantities; in this book I shall not use the macron in writing Hittite words.

Apparently one of the most important reasons for writing extra vowel signs was to distinguish clearly between *e* and *i*, since a majority of the syllabic signs were ambiguous in this respect. At the time when our texts were written, early *e* had become *i*, but in early times it had no doubt been important to denote clearly the radical vowel of *gi-e-nu* 'knee', *e-it* 'eat', *ú-e-ik-zi* 'asks', *pí-e-da-an*

<sup>37</sup> Sommer, BoSt. 10.18, 74 (1924); Götze, Madd. 120 (1928); Sturtevant, AJP 50.360-9 (1929).

<sup>38</sup> Götze, Madd. 80 fn. 4 (1928); Pedersen, Hitt. u. IE 34, 194 (1938).

'place', *ki-e* 'haec', *e-ip* 'take', *li-e* 'nē', and a number of others. Then it became customary to write vowel signs alongside syllabic signs where they were not needed for clarity: e.g. *e-eš-zi* 'is', *e-eš* 'be!', *ne-e-u-it* 'novō', *te-e-pu* 'small', *ú-e-eš* 'we', the personal endings *-me-e-ni*, *-u-e-en*, *-te-e-ni*, and the curiously inconsistent forms *ú-i-e-eš* 'we', *ku-i-e-eš* 'who, which' (pl.). When the phonemic distinction between *e* and *i* had vanished, sticklers for the traditional spelling no doubt tried harder than ever to preserve these forms. It is noteworthy that out of 6,784 instances of repeated vowels 45 per cent are *a*, 30 per cent *e*, 9 per cent *i*, and 16 per cent *u*.

Another factor of some importance in determining how to write a vowel is the length of the word. Except for enclitics and proclitics, the sentence connectives, *nu* and *ta*, *ne*, and *še* 'et ea', no words are written with a single sign. Hence no conclusion should be drawn from the use of two signs in *e-eš* 'be!', *e-ip* 'take!', *e-it* 'eat!', *i-it* 'come!', *ki-i* 'hoc', *ki-e* 'haec', *li-e* 'nē', *ma-a* 'prosper!', *pa-a* 'go!', *da-a* 'take!', *ú-uk* 'I'. Verb forms ending in *-ai* almost always have *a* written double if no sign precedes the initial consonant (*la-a-i*, *ma-a-i*, *na-a-i*, *pa-a-i*, *ša-a-i*, *da-a-i*, *wa-a-i*, *za-a-i*). If one sign precedes, either orthography is freely used (*a-ra-a-i* 'rises', *ar-ra-i* 'washes'). If two signs precede, the extra vowel sign is usually omitted (*hu-wa-a-i* 'flees' but *hu-u-wa-i* beside *hu-u-wa-a-i*). If more than two signs precede, the vowel sign is nearly always omitted (*hal-zi-iš-ša-i*, *kar-ma-la-aš-ša-i*, *la-aḥ-hu-wa-i*, *ta-a-iš-ta-i*; but *la-hu-u-wa-a-i*). There is a tendency not to double more than one vowel sign in a word. Hence *da-a-ir* = *da-i-ir*; *pí-e-da-i*; *da-ma-a-iš* = *da-ma-i-iš*.

The only vowel sign to be written twice in succession in Hittite is *a*, as in *a-a-an-za* 'hot', *a-a-an-ni-in-ni-ya-mi-iš* 'cousin', *a-a-ra* 'right'.<sup>39</sup> In these words *a-a-* may stand for *aya-*.<sup>40</sup>

### Nasals

48. The Hittite syllabary [24] has 16 signs that include the phoneme *n* and 22 that include the phoneme *m*. They correspond etymologically to the IE nasals, *m* to IE *m* [68] and *n* to IE *n* [66], except that *n* appears finally in a word where Proto-IE has *-m*. There is nothing in the cuneiform syllabary to indicate a different value for *n* when it stands before *k* or *g*, but we assume that it was a velar nasal in that position, just as in IE and IH.

There are no cuneiform signs for syllabic nasals, and *un* from IH syllabic *n* may be read in the same way as *un* of any other origin. In *e-šu-un* 'I was', *-un* must correspond to the final alpha of Hom.  $\eta\alpha$  'I was' and come from IH  $\bar{e}sm$  with syllabic *m* [63].

Before consonants, *n* is frequently omitted in the writing.<sup>41</sup>

Before *t* and *z*: *al-wa-(an-)za-tar*, *al-wa-(an-)zé-na-aš*, *a-a-(an-)da-aš*, *a-aš-ša-(an-)za*, *hu-u-ma-(an-)da-aš*, *kar-pa-(an-)zi*, *ki-it-pa-(an-)da-la-az*, *ma-al-la-(an)-*

<sup>39</sup> Cf. *ku-u-ú-uš* (KUB 14.14.2.31) = *ku-u-uš* (passim).

<sup>40</sup> IHL 45, 61 (1942). Götze-Pedersen, MS 31 (1934), interpret NINDA *a-ra-an-te-it* (KUB 10.89.1.21) as instrumental singular from NINDA *a-a-an* 'hot bread'.

<sup>41</sup> Friedrich, Elementarb. 1.9 (1940), concludes that such an *n* is a weak sound, but that certainly does not follow.

*zi, me-na-aḫ-ḫa-(an-)da, ne-e-a-(an-)za, iš-pa-(an-)tu-zi, iš-ta-(an-)ta-a-it, zé-e-ya-(an-)ta-za.*

Before *k*: *ḫar-ni-(in-)ku-un, ḫi-(in-)ik-zi, li-(in-)ik-zi, li-(in-)ik-ta, ma-ni-(in-)ku-u-an, ma-ni-(in-)ku-an-da-aḫ-ḫi, ni-(in-)ik, ni-(in-)ik-te-en, ni-ni-(in-)ik-zi, ni-ni-(in-)ik-ta, ni-ni-(in-)ik, šar-ni-(in-)ki-eš-mi, šar-ni-(in-)ik-zi, šar-ni-(in-)ik-ta, šar-ni-(in-)ik-zi-el, za-(an-)ki-la-tar.*

Before *ḫ*: *ša-a-(an-)aḫ, ša-(an-)ḫa-a-an, ša-(an-)ḫi-iš-ki-iz-zi, ša-(an-)aḫ-ta, ša-(an-)aḫ-du, ša-(an-)aḫ-ḫu-un.*

Some of these omissions seem to be due to the impossibility of writing groups of more than two consonants, but it is significant that *n* rather than another of the group tends to be omitted. It is also significant that the omission of *n* is relatively frequent in certain texts that show a popular tinge. It is probable that in some dialect of colloquial Hittite, *n* before certain consonants had been lost. The occasional intrusion of an *n* in ablatives may be partly due to an over-correction of these words, e.g. *lu-ut-ta-an-za* (KUB 17.5.1.24) 'from a window'.

### Liquids

49. The Hittite syllabary has 24 signs of which *r* is an element and 19 containing *l*. In Hittite words *r* is never initial, but the apparent absence of words with IE initial *r* prevents an interpretation of that fact. Medial *r* sometimes alternates with *ḫ* (from IH *γ*) [75] and with hiatus between initial *a-a-* (from IH *aya-*) [39].<sup>42</sup> These alternations do not prove that Hittite *r* was a weak sound.

IH syllabic *r* and syllabic *l* regularly appear in Hittite as *ur* and *ul*.

### š, z

50. The Hittite sibilant is usually written š, which forms a component of 25 signs in our syllabary [24]. There is no certain proof what the phonetic character of the sibilant was, but the frequent double writing indicates that it was a voiceless sound [53]. Egyptian transliterations of Hittite names (*Mrsr* = *Mur-ši-li-iš*, *Htsr* = *Ḫa-at-tu-ši-li-iš*) suggest *s* rather than *š*.

Besides we have 8 signs of which *z* is a component, and in Hittite words, *z* has the value of *t* or *d* plus š; e.g. beside acc. sg. *a-ni-ya-at-ta-an*, nom. sg. *a-ni-ya-za* 'performance' [97]; beside *a-da-an-zi* 'they eat' *az-zi-(ik-)kán-zi* 'they are eating'; beside *da-a-i* 'he places' *zi-ik-ki-iz-zi* 'he is placing' [230].

Equally important are the occasional instances of final *t* or *d* plus initial š of an enclitic; *na-at-ši* 'and it to him' does not alternate with *\*na-az-zi*, but apparently just because the latter spelling was not traditional.

Hitt. š frequently comes from IH *s* [87]. IH *t* before *ı* or *ē* yields Hitt. *z* (usually written double if possible) but *t* in the other Anatolian languages (82b, c). IH *tst* (from *t* plus *t* in morphological processes) remains in Hittite (84a).

### ḫ

51. Hittite uses 12 signs [24] to represent ḫ. There are two noteworthy features of spelling in the use of these signs; the consonant is usually written

<sup>42</sup> See Götze-Pedersen, MS 28-32 (1934).

double when that is possible, and it rarely stands next the vowel *e*. Neither feature is constant, and exceptions to one rule are usually accompanied by exceptions to the other (*me-ḫur me-ḫu-na-aš* 'time', *še-e-ḫur še-e-ḫu-na-aš* 'urination', *ú-e-ḫu-un* 'I turned', *e-ḫu-ra-ti-uš* 'ear-stoppers', but *te-iḫ-ḫi* 'I place'). Götze-Pedersen<sup>44</sup> have collected several instances of alternation of single *ḫ* with *r* [49]. We shall show that Hittite possessed two velar spirants: one voiceless and written double when possible [74], the other voiced and almost always written single [75].

### Stops

52. The cuneiform syllabary, as used in Hittite, provides mechanism for writing 7 stops, *k*, *q*, *g*, *t*, *d*, *p*, and *b*. For *q* there is only one sign, *qa*, and we at once decide that Hittite did not possess the particular phoneme that is denoted by this sign in Akkadian; in Hittite words, *qa* alternates with signs for *ka* and *ga* in such a way that we are compelled to assume their complete equivalence (*ku-e-el-qa* = *ku-e-el-ka*, *ku-e-iz-qa* = *ku-e-iz-ka*, *me-iq-qa-e-eš* = *me-iq-ga-e-eš*, *me-iq-qa-(a)-uš* = *me-iq-ga-uš*). The pairs *k*, *g*; *t*, *d*; and *p*, *b* are so frequently interchanged that no inference can be drawn as to a distinction between them; *gi-e-nu* 'knee' forms dat. pl. *ki-nu-wa-aš*; *ga-i-na-aš* = *ka-i-na-aš* 'wife's relative'; *ga-ni-eš-zi* = *ka-ni-iš-zi*; from *da-a-i* 'takes' we have 1 pl. *tu-um-me-ni*, *tum-me-ni*, *du-um-me-e-ni*; from *da-a-i* 'places' 1 sg. *te-iḫ-ḫi*, 3 pl. *ti-an-zi*. The relationship between *p* and *b* was already somewhat confused, but it has been further deranged by the agreement among scholars to transcribe *pí* and *pár* instead of *bi* and *bar* in Hittite texts. The only unambiguous sign for writing *b* is *ba*, and that occurs in Hittite only in the royal title *ta-ba-ar-na-aš* and in a few other words that may well be loan words. Even in the common noun *ta-pár-i-ya-aš* or *ta-pa-ri-ya-aš* 'ruler' the sign *ba* is not used. I am confident that we must recognize the value *be* for the sign No. 13 in the list [24], which others interpret always as *pít* [24 fn. 5], but there is no corresponding sign for *pe*.

It therefore appeared necessary to conclude that Hittite made no distinction between voiced and voiceless stops. This conclusion was welcomed because a similar situation seemed to exist in several other languages of the ancient Near East.

### Voicelessness Indicated by Double Writing

53. We know now, however, that Hittite made a distinction between voiced and voiceless stops and other phonemes by writing the latter double where the cuneiform syllabary makes this possible.<sup>45</sup>

As we have already seen [6], this method of indicating lack of voice probably originated in Hurrian.<sup>46</sup> In that language voicelessness is indicated by double writing of the consonants *p*, *t*, *k*, *š*, *ḫ*, and (probably) *z*. In these cases a certain

<sup>44</sup> Götze-Pedersen, MS 28-32 (1934).

<sup>45</sup> Sturtevant, JAOS 52.1-12 (1932); Stefán Einarsson, Lang. 8.177-82 (1932); Walter Petersen, Lang. 9.22 f. (1933); Sturtevant, HG<sup>1</sup> 74-86 (1933), Lang. 13.285-91 (1937); Pedersen, Hitt. u. IE 173 (1938); Sommer, Heth. u. Heth. 72-7 (1947).

<sup>46</sup> E. A. Speiser, Lang. 16.319-40 (1940), Introduction to Hurrian 35-51, 61 f. (1941).

amount of confirmation is given by variant spellings in the Ras Shamra alphabet. There are also double writings of *l*, *m*, *n*, and *r*, but these show somewhat less regularity, and the Ras Shamra alphabet cannot distinguish between voiced and voiceless *l*, *m*, *n*, and *r*. Hurrian scholars are inclined to interpret the double writing of the latter phonemes as a mark of gemination.

This system of marking a distinction between voice and voicelessness seems not to have been quite adequate for Hurrian; at least Speiser records words written in the alphabet with initial *k* and others with initial *g*. Certainly it was bound to be unsatisfactory for Hittite or for any language of the IE type with initial and final variation between pairs distinguished by voice, and with many medial consonant groups.

The theory, as far as Hittite is concerned, is primarily based upon such consistent spellings as *kat-ta* 'with, along, down' : *κατά*; *-at-ta-(a-)ri*, 3 sg. ending of the midd. : Lat. *-tur*; *a-ap-pa* 'back, again' : *ἀπό*; *te-ik-ku-uš-ša-mi te-ik-ku-uš-ša-nu-ši te-ik-ku-uš-nu-ut* 'show, prove' : Lat. *dīcere*, *δεικνυμι*, as contrasted with *a-tu-e-ni* 'we eat', *a-da-an-zi* 'they eat', *e-te-ir* 'they ate' : Lat. *edō*, *ἐδομαι*; *pí-e-da-an pí-di pí-e-ti* 'place' : *πέδον* 'ground'; *wa-a-tar ú-i-te-na-aš* 'water' : *ὕδωρ*; *a-pa-(a)-aš* : Lyc. *ebe* 'that'; *ne-pí-iš* 'sky' : Skt. *nabhas* 'cloud, sky'; *te-(e)-pu-uš* : Skt. *dabhras* 'small'.

The recognition of double writing of Hittite *ḫ* as a mark of voicelessness is due to several students of the (IH) laryngeals<sup>47</sup> (*ḫu-uḫ-ḫa-aš* 'grandfather' : Lat. *avus*; *la-aḫ-ḫa-* 'war' : *λαός* 'army'; *la-aḫ-ḫu-tin* 'pour ye' : *λόω* 'wash', Lat. *lavit lavit*; *pa-aḫ-ḫur* 'fire' : *πῦρ*; *ne-wa-aḫ-ḫu-un* 'I renewed' : Lat. *novāre* as against *me-ḫur me-ḫu-na-aš* 'time, point of time'; *še-e-ḫur ši-e-ḫu-na-aš* 'urination'; *ú-e-iḫ-zi wa-ḫa-an-zi* 'turn, fall'; *pí-e-ḫu-te-iz-zi pí-e-ḫu-da-an-zi* 'lead away').

The conflicting nature of the Hittite evidence for lack of voice is shown by these examples: *li-pa-a-an-zi* (KBo. 6.34.1.29) = *li-ip-pa-an-zi* (2.20) 'they smear' : *λίπος* 'animal fat', Skt. *lip-* 'smear'; *ši-pa-an-ti* (the usual spelling) = *ši-ip-pa-an-ti* 'he pours a libation' : *σπένδω*; *-tu* 'tibi, te' : Lat. *tū*, <sup>D</sup>UTU.ŠI-*wa-du-za-kán* = <sup>D</sup>UTU.ŠI-*wa-ad-du-za-kán*; *i-ya-ta-ri* (KUB 10.17.2.24, 21.1.3.53) = *i-ya-at-ta-ri* 'he goes'; *a-ku-e-ni* 'we drink', *e-ku-ir* 'they drank' : *ak-ku-uš-kán-zi* 'they are drinking' : Lat. *aqua* 'water'; *la-a-ḫu-i* = *la-(a)-ḫu-(u)-wa-i* = *la-aḫ-ḫu-u-wa-i* 'pours'; *ša-a-ak-ḫi* (KUB 30.10.1.10) = *ša-ag-ga-aḫ-ḫi* 'I know'; *(a)-ar-ḫu-un* = *(a)-ar-aḫ-ḫu-un* 'I arrived'; *te-ḫi* (KUB 14.3.2.35, 3.6) = *te-iḫ-ḫi* 'I place'. The most that we can claim for Hittite orthography is that there was a strong tendency to write voiceless stops and *ḫ* double in positions where the syllabary made that possible, and also to introduce silent vowels to make it possible to do this. It was, however, never requisite to write voiceless consonants double, even between vowels. Consequently, two or three instances of double writing weigh more than any number of cases of single writing.

It is clear, therefore, that Hittite scribes denote voicelessness by double writing of *p*, *b*; *t*, *d*; *k*, *q*, *g*; and *ḫ*. Double writing of *z* between vowels is more common than in any of the above cases except the last, and *šš* is extremely

<sup>47</sup> Edward Sapir, Lang. 10.276 fn. 4 (1934), 12.175-80 (1936), JAOS 57.75-7 (1937); Walter Couvreur, Teksten en Verhandelingen, Nummer 12, Beheer van Philologische Studien 17-20 (1935), Hett. H (1937); Sturtevant, Lang. 12.185-7 (1936), IHL 35-42, 46-53 (1942).

frequent. We must conclude, therefore, that Hitt. *šš* and *zz* both stand for voiceless phonemes or clusters. We need not at once decide that *a-ša-an-zi* 'they are', *e-šu-un* 'I was', *e-šu-(u)-en* 'we were', *e-šir* and *e-še-ir* 'they were' all contain a voiced sibilant; in all probability Hittite had no voiced sibilant. Even in the enclitic reflexive *-az -za*, which is constantly written single, we assume *-ts*.

Still less is it necessary to infer from the occasional double writing of *l*, *r*, *m*, and *n* that these phonemes showed a variation between voice and voicelessness in intervocalic position. The double writing of all of them occurs, but distinctly less frequently and consistently than in the case of the other consonants.

#### Gemination

**54.** In many words and phrases we are justified in inferring gemination from double writing of a consonant. The root *ku-en-* 'strike' plus suffix *-na-* gives *ku-en-nu-um-me-e-ni*, *ku-en-na-an-zi* *ku-en-nir* 'we strike', etc. [235]. The verbal nouns in *-mar* form a gen. sg. in *-mmaš* from *mnaš*, e.g. *a-ar-nu-mar* 'a carrying', gen. *ar-nu-um-ma-aš* (KUB 2.1.2.28) [101]. The genitive of verbal nouns in *-tar* ends in *-tnaš* from *-tnaš* (*al-wa-an-za-tar* 'witchcraft', gen. *al-wa-an-za-an-na-aš*) [98].

When final consonants are assimilated to initial consonants of enclitics we sometimes meet such forms as *tu-ra-am-mi-it* (KBo. 3.22.79) = *tu-ra-an-mi-it* 'my team'; *pí-ra-aš-še-it* (KUB 9.28.1.22) 'before him', *iš-ta-ma-na-aš-ša-an* (KBo. 6.3.1.37) 'his ear', *ad-da-aš-ša-an* (KUB 11.5.1.10) 'his father'. Not infrequently we meet a single writing of a consonant that has arisen in just this way; e.g. *me-ma-i* (passim) 'he says' but *me-im-ma-i* (KUB 17.28.2.39, 55) : μέμνηται; *šar-ra-ma-aš-ma-aš* (KUB 17.35.3.11) 'part of them however' (from *šarran-ma-*); *la-a-am-ma-a-mi-it* (KUB 1.16.3.13) 'my name' (from *la-a-ma-an* 'name').

In several words gemination of a mute is indicated by double writing. Thus the final mute of several forms of the personal pronouns is *g* from IH *eg* 'I' : ἐγώ, Lat. *ego*, Goth. *ik*, Old Norse *ik*, etc. [170a, b, h, i]. The occasional final *a* of these forms (*ú-ga ú-uk-ka*, *zi-ga*, *am-mu-ga am-mu-ug-ga am-mu-ug-qa*) probably comes in part from Hitt. *-a* 'and', in part from IH *-ge/go/gv-*, the familiar IE *-ge* frequently appended to personal pronouns. Such a form as *ú-uk-ka*, then, represents [ug-ga]. Other examples are nom.-acc. *lu-ut-ta-i* 'window' (IH *lwktēy*) [148b] and *ut-tar* 'thing, affair' [98].



## CHAPTER THREE

### PHONOLOGY

#### Phonemic System of Proto-IH

**55.** Our studies of Proto-Indo-Hittite and of its development into Proto-Indo-European on the one hand, and into Hittite on the other, have made great advances since 1933 when the first edition of this grammar was published. The effects of this new knowledge show particularly in the treatment of the phonology. Now, as before, the material must be arranged according to the phonemic system assumed for Proto-Indo-Hittite. I repeat the statement of that system from [32] in Chapter II.

Vowels: *e, ē, o, ō, ɐ*

Semivowels: *y, w, r, l, n, m*

Laryngeals: *'*, *h*,<sup>1</sup> *x, γ*

Stops: *k, t, p; g, d; g', d', b'*

Sibilant: *s*

Since our information on the laryngeals is defective, we shall have to use the following cover symbols in reconstructing Proto-Indo-Hittite:

A = any laryngeal

H = any voiceless laryngeal (*'*, *h, x*)

E = either *e*-colored laryngeal (*'* or *γ*)

? = either *'* or *h*

Ā = either *a*-colored laryngeal (*h* or *x*)

Ĥ = either laryngeal retained by Hittite (*x* or *γ*)

*e*

**56.** IH *e* remains in early Hittite but becomes *i* in later times, although preserved in the written form of a number of common words [36, 37].

Pre-IH *e* in contact with the second laryngeal yielded the allophone *a* in IH, and when this laryngeal was lost in pre-IE and pre-Hittite, the vowel *a* became a phoneme. We shall treat the evidence in connection with the IH laryngeal *h* [76].

*e-eš-zi*<sup>2</sup> 'he is', *e-eš-mi* 'I am' : *ἐστῑ, εἰμῑ*, Lat. *est*, Lith. *esmi* 'I am' [87].

IH *'esty, 'esmy*.

*e-eš-ḫar iš-ḫar* : *ἐᾱρ*, Hesych. *ἥαρ*,<sup>3</sup> Skt. *asṛk* 'blood' [75, 87].

IH *Eéystr*.

*e-it-mi, e-te-ir* : Skt. *admi*, *ἐδομαι*, Lat. *edō* 'eat' [83].

IH *'ed-*.

<sup>1</sup> This was written' in IHL.

<sup>2</sup> -šz- for -št- is analogical [82b].

<sup>3</sup> Sturtevant, Lang. 16.86 (1940), IHL 48 f., 64 (1942).



- gi-e-nu, gi-nu* : Lat. *genū* 'knee'. IH. *genw*.  
*me-ik-ki-iš* 'large' : μέγας.<sup>4</sup>  
*ne-pi-iš* 'sky' : νέφος 'cloud', OCS *nebo* 'sky'. IH *nebces*.  
*ne-e-u-iti* (inst.) : νέος 'new'. IH *newo*.  
*pi-e-da-an* 'place' : πέδον 'ground', Ir. *ed* 'spatium'.<sup>5</sup> IH *pedom*.  
*ši-ip-ta-mi-ya* (dat.) : Lat. *septimus* 'seventh'. IH *septmo*.  
*še-eš-zi*,<sup>6</sup> *še-eš-mi*, *še-e-šu-un* : Skt. *sasti* 'sleeps'. IH *sesty*.  
*ú-e-ik-zi* 'asks' : Skt. *vaṣṭi* 'desires', ἐκών 'willing'. IH *?wekty*.  
*ú-e-eš-tin* (imper.), *ú-e-eš-ša-an-ta* (midd.) 'clothe' : Skt. *vaste*, ἔσται 'clothes oneself', Lat. *vestis* 'garment'. IH *?wes*.  
*ú-it-ta-an* (KUB 29.1.2.9), dat. *ú-it-ti* (KBo. 3.22.1.10) 'year' : ἔτος 'year'. IH *wet*.  
*ni-ik-ku* (KUB 24.8.2.16, 17, 18) = Lyd. *nik*, Lat. *neque*. IH *'nekw*.  
 IH *e* before *r* and a consonant becomes Hitt. *a*:  
 (*a*)-*ar-aš-zi* 'flows' : Skt. *arṣati* 'flows', ἀπεράω 'pour out'. IH *'ers*.  
*pár-aḫ-zi* *pár-ḫa-zi* 'drives' : περάω 'cross', Goth. *faran farjan* 'travel'. IH *perx*.  
*tar-aḫ-zi* 'is powerful, can' : Skt. *tarati* 'crosses', Lat. *intrāre* 'enter', *termen* 'boundary', τέρμων. IH *terx*.  
*wa-ar-ap-zi* *wa-ra-ap-zi* 'washes, scrubs' : Goth. *af-swairban* 'wipe off', OE *sweorfan* 'scrub', Welsh *chwerfu* 'whirl'. IH (s) *werb*'.

Suffix *-tar -nnas* (*a-ša-a-tar*, dat. *a-ša-an-na* 'a seating'; *i-tar* 'road' : Lat. *iter*). The Hitt. *t* is written single and must therefore represent *d*. I have suggested<sup>7</sup> that the change from *t* to *d* may have resulted from partial assimilation in the oblique cases while *-tn-* was shifting to the *-nn-* that appears in our texts.

IH *ter*.

There are a few instances of analogical *er* before a consonant: *ku-e-ir-zi* *ku-ir-zi* 'cuts' beside pl. *ku-ra-an-zi* follows the model of *ku-en-zi*, 'strikes', pl. *ku-na-an-zi*; *me-ir-ta* 'died' and imper. *me-ir-du* show the same vocalism as the part. *me-ir-ra-an-da* (VBoT 24.3.27, 30). Sometimes *er* before a consonant is from IH *ēr* [57].

IH *e* final is constantly written *-i* in Hittite texts, except for the imperative second singular of stems in *-ya/e*-[313]. The clearest cases are third singular present of consonant stems of the *hi*-conjugation (*ša-ak-ki* 'knows', *ka-ra-a-pi* 'devours', *ḫa-a-ši* 'opens', *a-ša-a-ši* 'besets', *ši(-ip-)pa-an-ti* 'pours a libation', *la-a-ḫu-i* 'pours', *a-ki* 'dies') [265] and second singular imperative of thematic verbs of the *mi*-conjugation (*pi-eš-ki* 'give!' *uš-ki* 'see!' *ak-ku-uš-ki* 'drink!') [312].

For IH *ey* before a consonant, see [61b].

### ē

57. Certain comparisons of Hitt. *e* with *ē* of the historical Indo-European languages compel us to recognize IH *ē*, in addition to Proto-IE *ē* from IH *e*'.

<sup>4</sup> Constant *kk* reflects the consonant of Dor. *μάκος* 'length'.

<sup>5</sup> Götze-Pedersen, MS 64 (1934).

<sup>6</sup> *-šz-* for *-št-* is analogical [82b].

<sup>7</sup> Lang. 20.207 (1944).

Hittite evidence for this IH phoneme consists merely in identifying the quality of the vowel; we learn of its length only from the IE languages. It is therefore difficult to distinguish accurately between IH  $\bar{e}$  and IH  $e' > \text{IE } \bar{e}$ , since IH  $\bar{e}$  is lost in Hittite without leaving a trace [77].

Possibly the most certain proof that a distinction between  $e$  and  $\bar{e}$  existed in early Hittite, or in pre-Hittite, is to be seen in the change of IH  $\bar{t}\bar{e}$  to Hitt.  $ze$  in the suffix of *šar-ni-ik-zi-il šar-ni-ik-zi-el* 'indemnification' and *ta-ya-zi-il* 'theft': Lat. *sūtēla* 'a frame-up', *tūtēla* 'guardianship', etc.,<sup>8</sup> since the change of  $t$  to  $z$  is otherwise limited to the position before  $i$ . Almost equally clear is the identity of  $\bar{t}\bar{e}$  in Hitt. *zi-ik 'tū'* with Lat. *tē* and Osc. *tiium tiū 'tū'* [170 h].

In addition to the above we shall cite merely instances of the radical vocalism of the perfect (Goth. *gam qēmum*, whence Lat. *vēnī*, etc., with  $\bar{e}$  generalized<sup>9</sup>) and of lengthened grade forms that, in the Indo-European languages, belong to the  $s$ -aorist,

*še-ik-ku-e-ni* (KBo.5.3.2.71; KUB 19.25.1.11 'we know', *še-ik-te-ni* (KUB 7.10.1.5, 16.69.2.7, 17.21.1.6, 21.42.4.18) 'you know', *še-ik-kán-zi* (KUB 16.7.2.17, 22.61.1.15) 'they know', *še-ik-ku-e-en* (KUB 22.70.1.25) 'we knew', *še-ik-ki-ir* (KBo.5.8.1.6) 'they knew', *ši-ik-tin* (KUB 7.10.1.4), *še-ik-tin* (KBo. 3.1.2.68; KUB 17.14.4.20), 'know ye', *še-ik-kán-du* (KUB 21.34.2.10) : singular *ša-ag-ga-aḫ-ḫi ša-ak-ḫi*, *ša(-a)-ak-tiša-ak-ki*, etc. : Goth. *sah- sēhvun* 'saw'. IH  $\bar{s}\bar{e}k-$ .

*e-ir-te-ni* (KBo. 5.3.4.21, 23; KUB 21.42.1.2) 'you arrive', *e-ru-u-en* (KUB 21.10.1.24) 'we arrived', *ir-te-in* (KUB 24.7.1.13) 'you arrived', *i-e-ri-ir* (KUB 16.50.3) 'they arrived'<sup>10</sup> : sg. *a-ar-ti*, *a-ri*, *a-ar-ḫu-un*, *a-ar-aš* : Skt. *āra*, *āritha*, *ārur* 'have gone'. IH  $\bar{e}r-$ .

*ḫé-e-ša-an-zi* (KUB 12.2.4.3, 21.17.3.13) 'they open',<sup>11</sup> *ḫi-e-še-ir* (KUB 29.1.1.24) 'they opened' : sg. *ḫa-a-ši*, *ḫa-aš-ta*.

*ka-ri-pa-an-zi* (KUB 5.7.1.34) 'they devour', *ka-ri-e-pi-ir* (KUB 14.1.1.11) 'they devoured', *ka-ri-pa-an-du* (KBo. 6.34.3.23) 'let them devour' : sg. *ka-ra-a-pi* : Skt. *grbhṇāti*, *jagrābha* 'seize'. IH  $g'rēb'-$ .

From *ka-ra-a-pi* 'devours' we get also a 3 sg. pret. *ka-ri-pa-aš* (KUB 5.7.1.34), which probably exhibits the lengthened grade  $\bar{e}$  of the IE  $s$ -aorist active.

IH  $g'rēb's-$ .

o

**58.** IH  $o$  normally becomes Hitt.  $a$ ; here are some etymologies that establish that fact.

*ar-pa-an* (acc.) 'bad luck' : *ὀρφανός* 'orphan', Lat. *orbus* 'bereft', Goth. *arbi* 'inheritance', *arbaiþs* 'distress, toil'. IH  $\bar{o}rb'om$ .

*ḫa-a-ra-aš*, gen. *ḫa-ra-na-aš* 'eagle' : OHG *aro aru*, Lith. *erēlis* 'eagle', *ὄρνις* 'bird'. IH  $\gamma orn-$ .

<sup>8</sup> Walter Petersen, Lang. 6.174 (1930).

<sup>9</sup> Sommer, Hdb. d. lat. Laut- u. Formenlehre<sup>2</sup> 550 (1914).

<sup>10</sup> These plural forms show that IH  $\bar{e}$  before  $r$  and a consonant does not change to  $a$  as  $e$  does. The 3 pl. *a-ra-an-zi* may come from an IH present in *-onti*, or it may be due to the analogy of the Hittite singular forms.

<sup>11</sup> *ḫa-aš-ša-an-zi* 'they open' must be explained in the same way as *a-ra-an-zi*; see fn. 10.

- ḥa-aš-du-(e)-ir* (KBo. 3.63.2.18; KUB 17.28.4.44; VBoT 24.3.14, 27, 30, 42) 'twigs, branches': ḏšos, Goth. *asts* 'branch, twig'.<sup>12</sup> IH *yo-sd-*.  
*ḥa-aš-ta-i ḥa-aš-ti-ya-aš* 'skeleton': Skt. *asthi*, ὀστέον, Lat. *os* 'bone'. IH *Host'y-*.  
*ku-wa-at* 'why': Lat. *quod*. IH *kwot*.  
*pa-ra-a* 'forth': πρὸ, Skt. *pra*; but cf. Lat. *prō*, Av. *frā*. IH *pro*.  
*ša-(a)-ku-wa* 'eyes': ὄσσε, ὄμμα, ὄψομαι, Lat. *oculus*. IH *sokw-*.

Certain endings of the *o*-declension appear in Hittite with the vowel *a*, as follows:

- nom. *ḥu-uḥ-ḥa-aš* 'grandfather' = Lat. *avus*, *iš-ḥa-(a)-aš* 'master' = Lat. *erus*; *a-ru-na-aš* 'sea'. IH *-os*.  
 acc. *a-ru-na-an*, *at-ta-an*. IH *-om*.  
 neut. *pí-e-da-an*: πῆδον, ἰ-ῦ-κάν = ζυγόν, Lat. *iugum*. IH *-om*.  
 gen. sg. *iš-ḥa-a-aš*, *a-ru-na-aš*, *pí-e-da-aš* [132a]. IH *-os*.  
*-aš* 'is', *-an* 'eum', *-at* 'id'. IH *-os, -om, -od*.

The genitive singular of consonant stems usually shows the vowel *a* before *s*:  
*ne-pí-ša-aš* 'of the sky': νεφέας 'of a cloud', *ú-i-te-na-aš* (KBo. 3.21.2.22) 'of water'. IH *-os*.

The characteristic radical vowel of the singular of *ḥi*-conjugation verbs is *a*; cf. *o* in the singular of IE perfects.

- ša-(a)-ag-ga-aḥ-ḥi*, *ša-(a)-ak-ti* 'know': pl. *še-ik-we-ni*, *še-ik-te-ni* [233]. IH *soke*.  
*a-ri* 'arrives': *e-ir-te-ni* [233]. IH *'ore*.  
*ši-(ip)-pa-an-ti* 'pours a libation' [232]: σπένδω, Lat. *spondeō*. IH *sponde*.  
*ga-an-ki*, *kán-ga-aḥ-ḥi* 'hang': Eng. *hang* [232]. IH *konge*.

### ō

59. There are several etymologies that seem to imply IH *ō*, yielding Hitt. *a*.  
*la-a-ma-an* 'name' Lat. *nōmen*, with dissimilation of the initial *n*. IH *nōmən*.  
*wa-a-tar* 'water': ὕδωρ (Hittite shows reduced grade of the first vowel). IH *wōdōr*.

*a-ru-na* 'to the sea', *a-aš-ka* 'to the gate', *ḥa-aš-ša-an-na* 'to the family', *gi-im-ra* 'to the field', *la-aḥ-ḥa* 'to the campaign', *šu-uḥ-ḥa* 'to the roof', *tu-li-ya* 'to the assembly': Lat. dat. ending *-ō*, -ω [133a, b, e]. IH *-ō(y)*.

*a-ru-na-az* 'from the sea', *a-aš-ka-az* 'from the gate', *ir-ḥa-az* 'from the boundary': Lat. abl. ending *-ōd* [134]. IH *-ōt(s)*.

A few words, particularly in early texts, show a genitive in *-an*,<sup>13</sup> which must be identified with the IE genitive plural ending *-ōm* [145]. IH *-ōm*.

59a. A number of Hittite forms have led many scholars<sup>14</sup> to believe that original *ō* before a nasal yields Hitt. *u*. Such forms are acc. pl. *an-tu-uḥ-šu-uš*

<sup>12</sup> Maurice Bloomfield, Lang. 3.213f. (1927); Sturtevant, Lang. 15.150-3 (1939), IHL 52.

<sup>13</sup> See Ehelolf, ZA NF 9.173-81 (1935); Friedrich, Elementarb. 1.15 (1940).

<sup>14</sup> Notably Pedersen, Hitt. u. IE 28 and passim (1938).

beside ἀνθρώπους 'men', 1 sg. pret. *e-ip-pu-un* 'I took' beside ἔλιπον 'I left' and certain accusative singular pronouns, e.g. *ku-u-un* 'hunc'. The objection to this theory is that inherited *o*-stem nouns are comparatively rare in Hittite and the verbs that show preterit first singular in *-un* are consonant stems. The accusative plural in *-uš* probably originated in the consonant declension (φύλακας), where the ending was IH *-us*. There is no reason for comparing *e-ip-pu-un* from pres. *e-ip-mi* 'I take' with a thematic form like ἔλιπον rather than with consonant stem forms like Hom. ἦα 'I was', or εἰδείξα 'I showed'; the IH ending was *-u* [253]. The only Hittite pronoun that was certainly an *o*-stem was the enclitic *-aš*, whose accusative singular was *-an* [187]. Such accusatives as *ku-u-un* 'this' must have some other origin than IH *o*-stems. Hitt. *-u-* in all these words may be traced to IH *m* or *n* in syllabic value.

6

60. The reduced vowel *ɐ* represents an original unaccented *e*. The existence of such a vowel in Proto-IE has long been assumed by a number of scholars and rejected by others.<sup>15</sup> For the reconstruction of Proto-IH, the assumption of the reduced vowel *ɐ* seems even more necessary than for Proto-IE.

In many words the evidence for IH *ɐ* is of the same sort as that for IE *ɐ*; it is represented by *a*, which alternates with full grade *e*, as in Lat. *magnus*, *magis* beside μέγας. In other words we have Hitt. *a*, which can be traced to IH *ɐ* followed by a laryngeal; from the group IH *ɐA* results IE *a*<sup>16</sup>.

*a-tu-e-ni* 'we eat', *az-za-aš-te-ni* (KUB 1.16.3.34, 48) 'you eat', *a-da-an-zi* 'they eat', part. *a-da-an-te-eš* beside *e-it-mi* 'I eat'; cf. ὀδόντες, ἔδοντες 'teeth', Arm. *atamn*, Lat. *dēns*, Skt. *dan* 'tooth' [220a, 300]. IH *\*dōntes*.

*a-ša-an-zi* 'they are' : *e-eš-zi* 'he is'; cf. Skt. *sānti*, Osc.-Umbr. *sent*, Lat. *sunt* 'they are' [220a, 299]. IH *\*sōnti*.

*wa-aš-ša-an-zi* 'they clothe', imper. 3 pl. *wa-aš-ša-an-du*, part. *wa-aš-ša-an-za* beside imper. 2 pl. *ú-e-eš-tin* and midd. 3 pl. *ú-e-eš-ša-an-ta* : ἐννύμι, ἔσσαι, Lat. *induō*, *exuō*, Lith. *avėti* 'wear shoes'. IH *Hwsōnti*.

*na-at-ta* 'not' : *ni-ik-ku* 'neque'.

IH *Anō-tóy* : *Ané-kw*.

*ma-ak-ki-e-eš-zi*, *ma-ak-ki-eš-ta* 'become great' : Lat. *magnus*, *magis*. The *kk* comes from the root of Dor. μάκος 'length' (cf. *ma-ak-la-an-da-an* 'lean'). The vowel in this word may correspond to the *a* of Lat. *magnus* or to that of Lat. *macer*.

IH *məg-* or *məhk-*.

*a-ku-wa-an-zi* 'they drink', *a-ku-wa-an-du* (KUB 15.34.1.49), infin. *a-ku-(wa-)an-na*, durat. *ak-ku-uš-ki-iz-zi*, *ak-ku-uš-kán-zi*, *ak-ku-uš-ki-nu-un*, *ak-ku-uš-ki-it*, *ak-ku-uš-kir* : *e-ku-(uz-)zi*, etc. : Lat. *aqua*, Goth. *ahva* 'water', OIcel. *æger* 'sea, god of the sea' [79, 220b]. IH *\*v'kw-*.

*ap-pa-an-zi* 'they take', durat. *ap-pí-iš-ki-iz-zi*, *ap-pí-eš-ki-it* : *e-ip-zi*, etc. : Lat. *apīscor* 'gain, attain' beside *coēpī* 'I began' [220 b]. IH *\*v'p-*.

*hu-u-wa-an-te-eš* (KUB 6.46.3.49) 'winds' : Lat. *ventī*.<sup>16a</sup>

IH *xwō'nt-*.

<sup>15</sup> For a brief account of the controversy, see IHL 31 f. (1942). See particularly Franklin Edgerton, Lang. 10.235-65 (1934), 19.83-124 (1943); Sturtevant, Lang. 19.293-312 (1943).

<sup>16</sup> The argument for this theory is given in IHL 71 f.; Sturtevant, Lang. 24. 259-61 (1948).

<sup>16a</sup> Cf. Sturtevant, Lang. 19.310 (1943).

*ma-ak-la-an-da-an* (KUB 13.5.2.19) 'thin': μακρός, Lat. *macer* 'thin' beside Dor. μακός 'length' [220 b]. IH *māhk-lo-*.

*tī-it-ta-nu-uz-zi* 'places': Skt. *sthitas*, στατός, Lat. *status* beside ἰσθῆμι [76]. IH (s) *tāh-new-*.

*tum-me-ni* 'we take', *da-at-te-ni*: *da-a-i*: Lat. *dās*, Skt. *dadāsi* 'you give' [76]. IH *dwme-, dāhte-*.

## y

61. This IH phoneme might stand (a) before a vowel,<sup>17</sup> in which case it remained in Hittite except that it was lost between like vowels; (b) after a short vowel and before a consonant or final (i.e. as final member of a short diphthong); (c) after a long vowel and before consonant or final (i.e. as final member of a long diphthong); or (d) as a syllabic, between consonants or final after a consonant.

## y before a vowel

61a. *i-ya-at-ta(-ri)*, *i-ya-an-da(-ri)* 'go', *i-ya-an-na-i*: Skt. *yāti* 'goes', *yānam* 'a going, vehicle', Lat. *iānua* 'door', Lith. *jóju jótī* 'ride': IE *ei-* 'go' [76].

IH *'yehty*.

*i-ya(-az-)zi i-e-iz-zi* 'make, do', Luw. *a-i-ya-ru*, Lyc. pret. 1 sg. *aga*, pret. 3 sg. *adē* 'make', Toch. *yam-* 'make'.<sup>18</sup> IH *'ye-*.

*i-ú-kán i-ú-ga-an*, dat. *i-ú-ki* 'yoke': Skt. *yugam*, ὄρν, Lat. *iugum*.

IH *ywgom*.

*i-ú-ga-aš*, *i-ú-ga-aš-ša-aš* (KBo. 6.26.3.16) 'yearling', *ta-a-i-ú-ga-aš da-a-i-ú-ga-aš ta-a-ú-ga-aš* 'two years old'. W. M. Austin and H. L. Smith<sup>19</sup> have shown that *i-ú-ga-aš* must be connected with τὸ ζεύγος 'team'. It follows that the second Hittite word for 'yearling' is a genitive of the neuter *s*-stem (ζεύγος > ζεύγους); it is therefore one of the genitival adjectives,<sup>20</sup> the development of which was characteristic of Hittite and, no doubt, of Indo-Hittite also. The original meaning of *i-ú-ga-aš-ša-aš* was 'of yoking, old enough to yoke'.

The shorter adjective *i-ú-ga-aš* is identical in form with the Sanskrit *o*-stem *yógas* 'a yoking, union'; both words may have originated from the IH gen. *yewgosos* by haplology. The Hittite adjective is doubtless influenced also by the compound *da-a-i-ú-ga-aš*, which must originally have meant 'of the second yoking' or the like [89].

IH *yéwgos*.

*ne(-e)ya-an-zi* 'they lead, turn' and other thematic forms from the same stem: Skt. *nayati* 'leads'<sup>21</sup> [319].

IH *né'yonty*.

*ta-a(-i)-iz-zi ta-(a)-i-e-iz-zi da-a-i-ya-zi* 'steals': Skt. (s) *tāyus* 'thief', OCS. *tajq* 'I hide' [222].

IH *téhyety*.

The loss of *y* between like vowels seems clearest in the conjugation of the

<sup>17</sup> On the treatment of *y* before a vowel in Hittite, see Sturtevant and Trager, Lang. 19.209-220 (1943).

<sup>18</sup> Götze-Pedersen, MS 51 (1934); Sturtevant, JAOS 63.3 (1943).

<sup>19</sup> Lang. 13.104-6 (1937).

<sup>20</sup> Götze, Hatt. 59 (1925), Madd. 100 (1927); Friedrich, Vertr. 1.45, 158 (1926), 2.140, 142f. (1930); Sommer, AU 31 f. (1932); Sturtevant, TAPA 71.573-8 (1940).

<sup>21</sup> IHL 54 (1942).

denominative verbs in *-a(e)-*,<sup>22</sup> which normally show *-ae-* or *-ai-*, where IE thematic verbs have *e* before the endings but *-a-* (from *-ayo-*) elsewhere. An inherited word is *arwa(e)-* 'bow down' : ἀράομαι 'pray, curse' (*a-ru-(ú-)wa-(a-)iz-zi* : *a-ru-wa-(a-)an-zi*, *ar-wa-a-nu-un*). Evidently the formation goes with IE verbs in *-āyo-* from IH *-ehyo-* [76]. It seems likely that in this particular case the loss of *-y-* is more recent than the loss of *h* and the change of *o* to *a*.

### Short *y*-diphthongs

**61b.** The IH short diphthongs in *y* are *ey*, *oy*, and *vy*. IE *ai* comes from IH *ʷAy*.

#### *ey* before a consonant or final

IH *ey* appears in Hittite as *e*, but this *e*, as any other, may be written *i* [40, 42], and, by the time our texts were written, there seems to have been no distinction between *e* and *i*. Unless we have instances of the spelling with *e* we cannot be certain whether to assume IH *ey* or *y* (full grade or zero grade).

*e-hu* 'come!'<sup>23</sup> appears to be IH *'ey*, whence Lat *ī*. 'go!', with a particle *hu* that appears before a final *t* in the imperative middle, e.g. *e-eš-hu-ut* 'sit!', *i-ya-aḥ-hu-ut* 'go!' [283, 290].

IH *'ey*.

*te-ik-ku-uš-ša-mi* (KBo. 5.3.1.10) 'I show', 3 sg. pret. *te-ik-ku-uš-ši-e-it* (KBo. 3.60.1.5), 2 sg. pret. *te-ik-ku-uš-še-eš-ta* (KBo. 4.12.1.12) : *ἐδείξα*, Lat. *dixi*. Somewhat more common is the stem in *-nu-* (cf. *δείκνυμι*) : *te-ik-ku-uš-ša-nu-ši* (KBo. 5.3.1.29), *te-ik-ku-uš-nu-um-me-e-ni* (KUB 31.44.2.5), *te-ik-ku-uš-(ša)-nu-ut*, *ti-ik-ku-uš-nu-ir* (KBo. 2.5.4.15), etc. The constant writing of *ku* in the Hittite forms makes it very surprising that the Indo-European languages show no trace of a labiovelar, unless it be in the *v* of *δείκνυμι* [62a]; but the etymology seems certain.

IH *deykws-*.

The dative singular of the *a*-declension ends in *-e*, which is usually written *-i*; we may cite *a-ri-eš-ši* (KUB 13.20.1.33, 30.15.1.29) 'to his friend' beside *a-ri*; *eš-ḫé* (KBo. 3.34.1.25) beside *iš-ḫi(-i)* 'master' : Lat. *erus*; and *pí-e-te* (KBo. 4.9.1.49; KUB 29.1.2.24) 'place', *pí-e-di-eš-ši* (KUB 17.28.2.48) 'in his place' beside common *pí-(e)-di* : *πέδον*. This form corresponds to the locative case, Skt. *deve*, Lat. *domi*, *οἴκοι*, *οἴκει*.

IH *-ey*, *-oy*.

The dative singular of other stems than *a*-stems usually ends in *-i*, but there are a few forms such as *ú-i-da-an-da-an-ni-eš-ši* (beside MU-*an-ni*) (KUB 26.71.1.10), *na-ak-ki-ya-an-ni-eš-ši* (KBo. 3.17.1.14 = ZA NF 10.50.14), *e-eš-ri-eš-ši* (KBo. 3.7.3.20).

IH *-ney* beside *-ny*.

#### *oy* before a consonant or final

IH *oy* also became early Hitt. *e* and later *-i*. The original difference between IH *ey* and *oy* was a matter of ablaut, and it is not always possible to draw a clear distinction between them. We shall do the best we can with the aid of related forms.

<sup>22</sup> Götze, Madd. 96 f. (1928); Pedersen, Hitt. u. IE 136 f. (1938); Sturtevant, Lang. 14.245-7 (1938), 24.259-61 (1948).

<sup>23</sup> Sommer, AU 166 (1932).

-še, *ta-aš-še* (KBo. 6.2.2.44, 6.3.2.7, etc.), *nu-uš-še* (KBo. 3.34.2.33, 34, 6.2.1.50, 6.3.1.30, etc.), later -ši (*nu-uš-ši*, *am-mu-uk-ma-aš-ši*, etc.) 'ei, sibi': dat. sg. oī [182]. IH -soy.

The corresponding forms of first singular and second singular must have been -me and -te, but I can cite only the spellings -mī and -tī (VBoT 1.3-10): μοι, σοι. IH -moy, -toy.

The enclitic possessives seem to have been developed in Hittite from these pronouns; there are several citable forms with the vowel -e: *ša-a-ku-wa-me-it* (KBo. 2.38.2.9), *ud-ne-me-it* (KUB 29.1.1.18), *ša-a-ku-wa-at-te-it* (KBo. 3.28.2.11), *ut-tar-te-it* (KUB 17.4.12), *ud-da-a-ar-še-it* (KUB 1.16.3.43), *iš-ḫa-aš-še-ša* (KBo. 6.3.4.55), etc.

The nominative plural personal of the pronominal declension is written -e, later -i; *ne* (KUB 17.5.1.13 = 17.6.1.8) 'and they', *ki-e* (KBo. 3.4.1.28, 6.34.3.39, etc.) 'hi', *a-pt-e* (KBo. 3.1.2.15, 6.34.1.39, etc.) 'ei', but *a-pt-ya* (KUB 17.10.1.15) 'even they'. This ending must correspond to the ending of the IE nominative plural masculine: Skt. *te*, oī, Lat. *istī* [203]. IH -oy.

vy before a consonant or final

The neuter plural ending -e of Hittite pronouns seems to correspond to Lat. -ae (early Lat. -ai, Osc. -ai) and OPrussian -ai in the neuter plural interrogative *kai*. It may reappear in the Sanskrit neuter dual in -e in *āsye* 'two jaws' and such pronouns as *te*, *ime*, *ke*, and *ye*. The most likely source for these diphthongs is IH vy. We may cite:

*ki-e* 'haec' (e.g. KBo. 5.1.2.56), *a-pt-e* 'ea' (e.g. KBo. 5.1.3.21), *ku-e* 'quae' (e.g. KBo. 5.1.1.8): Lat. *quai* (CIL<sup>2</sup> 1.583.34), Osc. *paī*, *pai*; OPrussian *kai* 'what?' [203]. IH -vy.

#### Long y-diphthongs

**61c.** There has been some hesitancy to ascribe diphthongs to the Hittite language as it appears in our texts. In general we must infer Hittite pronunciation from the use of the cuneiform mechanism in writing Akkadian, and Akkadian had no diphthongs. The only possible evidence, therefore, for diphthongal pronunciation in Hittite must be etymological. This happens to be fairly clear in the case of certain diphthongs with long prior member resulting from lengthened grade.

A striking instance is the Hittite word for mouth,<sup>24</sup> nom.-acc. *a-(i-)iš*, gen. *iš-ša-aš*, which is certainly to be identified with Skt. *ās*, *āsas*, and Lat. *ōs*, *ōris* (both neuter). IH *Aōys*, *Aysos*.

Another example is the word for 'bone, skeleton', which appears in nom.-acc. as *ḫa-aš-ta-(a-)i*, gen. *ḫa-aš-ti-ya-aš*. In commenting upon this type of declension in the personal nouns, Sommer<sup>25</sup> has said: 'Man darf die Erscheinung getrost als "Ablaut" bezeichnen (zunächst auch wieder deskriptiv gesagt).' Compare Sommer's earlier remark about Latin *i*-stems with nominative singular in -ēs: 'Denkbar wäre ein dehnstufiges -ē(i)s zum Stamm -i-, das aber anderswo

<sup>24</sup> Sommer Hirt-Festschrift 2.291-6 (1936).

<sup>25</sup> Sommer, AU 356 (1932), Hdb. d. lat. Laut- und Formenlehre<sup>2</sup> 371 (1914).

nicht nachzuweisen ist.' I have pointed out <sup>26</sup> the great similarity of these two categories, and one may safely conclude that both of them contain lengthened grade IH *-ēy*. Here are examples.

*ḥa-an-da-iš* (KBo. 3.23.1.6, 2.9) 'heat'.

*ḥu-uk-ma-in* (KUB 12.58.1.33, 38, 40, 17.23.2.16) 'magic'.

*ḥu-ul-la-an-za-iš* (KBo. 3.1.2.19; KUB 12.39.6) 'battle', *ḥu-ul-la-an-za-in* (KUB 23.16.3.15).

*ḥur-ta-(a)-iš*, *ḥu-ur-ta-a-i-ša-az* (KUB 11.1.4.10) 'curse', *ḥu-ur-ta-in* (KUB 7.41.1.18).

*la-az-za-iš* (KUB 17.10.2.31) 'well-being'.

*ša-ga-(a)-iš* 'omen', *ša-ga-in* (VBoT 58.1.7).

*ša-ak-la-(a)-iš* 'rite', *ša-ak-la-(a)-in* [148 b].

The dative singular of *i*-stems sometimes ends in *ai*. This must come from *-ēi* or *-ōi*, implied by Sanskrit locatives singular such as *agnau* from *agnis* 'fire'; cf. Goth. dat. sg. *anstai* from *anstis* 'grace'. Examples follow.

*ḥu-uk-ma-i* 'incantation', *ḥur-da-i* 'curse', *li-in-ga-i* 'oath', *šu-up-pa-i* 'purō', *šal-la-i* 'magnō'.

#### Syllabic *y*

*y* between consonants and final

**61d.** This is usually, if not always, a zero grade vowel, arising in pre-IH upon loss of a neighboring unaccented *e* or *o*.

*i-it* 'go!', (*i-it-tin i-it-te-en* 'go ye!': Skt. *ihī, ita, ite, ite*. IH *'yd', 'yte*.

*ki-iš-ša-an*, *kiš-an* 'thus': Lat. *cis, citer, citrā* 'on this side, hither', Lith. *šis*, OCS *st* 'this'. IH *ky*.

*ku-iš* = Lat. *quis*; *ku-it* = Lat. *quid*. IH *kwys, kwyd*.

*ḥar-ki-iš* 'white': ἀργυ-κέρωνος 'with bright lightning'. IH *xergy-*.

The dative singular of consonant or liquid stems corresponding to the IE locative singular.

*ne-pi-ši* from *ne-pi-iš* 'sky': νῆφει, Skt. *nabhasi*. IH *neb'esy*.

*ú-e-te-ni ú-i-te-(e)-ni* 'in water' from *wa-a-tar*: ὕδατι. IH *-eny*.

The primary personal endings *-mi*, *-ši*, *-zi*, *-nzi* corresponding to IE *-mi*, *-si*, *-ti*, *-nti*.

*ku-e-mi* 'I strike', *ku-e-ši*, *ku-en-zi*, *ku-na-an-zi*: Skt. *hanmi, hañsi, hanti, ghnanti*.

*e-ip-mi* 'I take', *e-ip-ši*, *e-ip-zi*, *ap-pa-an-zi*.

*e-eš-mi* 'I am', *e-eš-zi*, *a-ša-an-zi*.

From these four inherited endings, final *-i* spread to all present indicative endings in Hittite. IH *-my, -sy, -ty, -nty*.

#### *w*

**62.** This IH phoneme might stand (a) before a vowel,<sup>27</sup> in which case it remained in Hittite; (b) after a short vowel and before a consonant or final

<sup>26</sup> Mél. Pedersen 58-62 (1937), Lang. 26.1-5 (1950). I do not maintain that lengthened grade vowels or diphthongs retained their original quantity in Hittite; we have no evidence on that question.

<sup>27</sup> On the treatment of *w* before a vowel in Hittite, see Sturtevant and Trager, Lang. 18.259-70 (1942).



(i.e. as final member of a short diphthong); (c) after a long vowel and before a consonant or final (i.e. as final member of a long diphthong); or (d) as a syllabic between consonants or final after a consonant.

*w* before a vowel

- 62a.** *wa-a-tar* 'water' : Goth. *wato*, OS *watar*, OE *wæter*. IH *wədōr*.  
*wa-a-ši* 'buys' : Skt. *vasnam* 'price', Lat. *vēnum* 'sale'. IH *wose*.  
*ú-e-ik-zi* 'asks' : Skt. *vaṣṭi* 'desires', *ἐκῶν* 'willing'. IH *'wekty*.  
*ú-e-eš ú-i-e-eš* 'we' : Skt. *vayam*, Goth. *weis*. IH *wey-*.  
*ú-e-eš-tin* 'put on! clothe!', *wa-aš-ša-an-zi* 'they put on, clothe' : Skt. *vaste* 'clothes himself', Lat. *vestis* 'garment', *εἶμα* 'garment'. IH *'wes-*.  
*u-i-ya-(az)-zi u-e-iz-zi* (KUB 31.42.2.11) 'drives, sends' : Skt. *veti vayatī* 'grasps, attacks', Av. *vayeiti* 'drives away', Lith. *veỹjù, vỹti* 'drive, pursue'. IH *weyty*.  
*ne-e-u-it* (inst.) 'new', *ne-wa-aḫ-ḫu-un* 'I renewed' : *νέος*, Skt. *navas*, Lat. *novus*. IH *newos*.  
*a-ru-wa-(a)-iz-zi, a-ru-wa-a-an-zi ar-wa-an-zi* 'bow before, worship' : *ἀράομαι* 'invoke, pray', *ἀρά* 'prayer, curse', Arc. *κάταρφος* 'accursed'. IE *\*rwāyo/e-*.  
 IH *\*rwēhyo/e-*.

In a number of Hittite words, *w* after *k* or *g* corresponds to the labilization of IE labiovelars. Since some of these seem to show syllabic *u* between consonants, in the manner of *κύκλος* 'wheel', Toch. A *kukāl* 'wagon' beside Skt. *cakras*, OE *hweol* 'wheel', it is tentatively assumed that in Proto-IH, *kw*, *gw*, and *g'w* were consonant groups as any others, and that full grade *kwe* alternated with zero grade *ku*. As long as we read Hitt. *ku-na-an-zi* 'they strike, they kill' = Skt. *ghnanti* as two syllables [gwnantsi] or the like, we may consider such forms as containing genuine labiovelars in Hittite. If so, we must, of course, reconstruct the Proto-IH word as *g'wnénty*, and the corresponding third singular as *g'wénty*. At present, however, we shall interpret Hitt. *ku-na-an-zi* as a trisyllable [gwnantsi] and ascribe the development of labiovelar phonemes to the pre-Indo-European period.

This conclusion offers a solution not only for such standing riddles as *κύκλος* and *γύνῃ* 'woman' beside Boeotian *βάνα* but also for Skt. *kutra* 'whither', *kutas* 'whence', *kuha* 'where', Lat. *alicubi* 'elsewhere', *ubi*, Osc. *puf*, Umbr. *pufe* 'where'. The assumption of an interrogative-indefinite stem IE *kwu-* beside *kwo-* and *kwi-* has always been absurd; what the historical forms imply is IE *ku-*. We have in the Indo-European languages a number of survivals of syllabic *u* from the time when *kw*, *gw*, and *ghw* before vowels alternated with *ku*, *gu*, and *ghu* before consonants.

The spread of the labiovelar phonemes in the Indo-European languages never drove out such forms as the above. In fact, the only Indo-European language that preserves clear traces of labiovelars before consonants is Greek, where we find *πεπτός* = Skt. *paktás* 'cooked', *ἐπτός* beside Latin *secūtus*, which implies rather a group of several phonemes, as in the cases discussed in the previous paragraph.

*ku-iš, ku-in, ku-it* 'quis, quem, quod' correspond closely with the equivalent

Latin words, except that *ku-it* is an *i*-stem form like Lat. *quid*. The neuter plural is Hitt. *ku-e* = Lat. *quae*, and the personal plural is *ku-e-eš* *ku-i-e-eš* (cf. early Lat. *quēs*). The adverb *ku-wa-at* 'why' corresponds in form with Lat. *quod*.

IH *kwys*, *kwym*, *kwyd*; *kw̄y*; *kwēs* (?); *kwod*.

*ku-en-zi* : Skt. *hanti* 'he strikes'.

IH *g'wēnty*.

*ku-na-an-zi* : Skt. *ghnanti* 'they strike'. IH probably trisyllabic *g'wnēnty*.

### Short *w*-diphthongs

62b. IH *ew* before a consonant becomes Hitt. *u*.

*hu-uh̄-ḫa-aš*, Lyc. *χyga-* 'grandfather'<sup>28</sup> : Arm. *haw*, Lat. *avus*, OIcel. *āe*.

IH *xewxos*.<sup>29</sup>

*lu-uk-zi* (KUB 9.15.2.17, 24.5.1.28) 'kindles, grows light', pret. *lu-uk-ta* (KBo. 5.8.1.26), *lu-uk-ki-e-ir* (KUB 14.1.2.54) : Skt. *rocate*, *λευκός* 'bright'.

IH *lewkt̄y*.

(*u*)-*up-zi* (KBo. 5.2.2.29; KUB 7.1.2.25, 30.31.1.2, 4, 10), *u-up-ta* (KBo. 5.8.3.23) 'rise' (of the sun) : Goth. *ūp* 'upwards', Skt. *upa* 'up, hither', *ὑπὸ* 'under'.

IH 'ewpty.

*ga-nu-ut* (KUB 12.63.1.26) inst.<sup>30</sup> : <sup>u</sup>*zū* *gi-e-nu* 'knee'; cf. Ved. gen. *madhos* : *madhu* 'honey', Lat. *cornūs* : *cornū* 'horn'.

IH *gnēwt* : *gēnw*.

*i-ū-ga-aš* *i-ū-ga-aš-ša-aš* (KBo. 6.26.3.16) 'yoked; one year old' : *ξέγγος* *ξέγγους*.<sup>31</sup>

IH *yewgos* *yewgesos*.

*ar-nu-(uz)-zi* 'he brings' : Skt. *ṛṇoti* 'he moves, attains, presents'.

IH 'rñēwt̄y.

*ud-ne-e* *ud-ni-e* *ud-ni* 'country' : *οὔθαρ* 'udder', Skt. *ūdhar* *ūdhnas*, Lat. *ūber* 'breast; fertile', etc. For the semantic development of the Hittite word, cf. Homer *οὔθαρ ἀπούρης*, Vergil *ūber arvī*, Cicero *ūbertās agrōrum*. Hitt. *udne* has identical form in singular and plural; probably it was originally a dual, as if we had in Greek *οὔθατε ἀπούρης*.

IH 'owd'ne

### Long *w*-diphthongs

62c. Evidence for Hitt. *au* as an original long diphthong is much more scanty than in the case of Hitt. *ai* [61c]. Nevertheless, the evidence adduced for deriving *ai* in the nominative singular of *i*-stems from IH *ēi* and *ōi* justifies us in thinking that *ḫar-na-a-uš* (nom. sg.) 'birth-chair' should be pronounced as two syllables, although no etymology can be suggested. The occasional forms with *-ai-* (e.g.

<sup>28</sup> Pedersen, *Lyk. u. Hitt.* 25 f. (1945).

<sup>29</sup> In IHL I wrote *xauxos*, giving effect to the change of quality from *e* to *a* induced by the laryngeal *x*. Since the difference was not phonemic in Proto-IH, it is disregarded here.

<sup>30</sup> Hans Ehelolf, *IF* 43.317 fn. 3 (1925).

<sup>31</sup> Austin and Smith, *Lang.* 13.104-6 (1937), proposed the connection of these words. I suggest that the longer form is a genitive singular of a neuter *s*-stem meaning 'a yoking, a team'. In the one passage where it is found (KBo. 6.26.3.16: ŠA 2 GUD *i-ū-ga-aš-ša-aš* UZU-ŠU-NU *ku-iš wa-a-ši* 1 UDU *pa-a-i* 'of 2 oxen of yoking—or of a team—who buys their flesh, gives 1 sheep') it stands in a typical Hittite construction, the one, namely, which gave rise to many *a*-stem adjectives [114]. Haplology shortened this to *i-ū-ga-aš* 'yearling', and that is what we read elsewhere. The compound *ta-a-i-ū-ga-aš da-a-i-ū-ga-aš* 'of the second yoking, two-year-old' is much clearer if it contains the genitive singular of an abstract noun like *ξέγγος* than if it must contain an adjective 'one-year-old'.

acc. sg. *ḫar-na-a-i-in*), if they belong to the same word,<sup>32</sup> may illustrate a gradual substitution of *ai* for *au* in Hittite more or less similar to the probable spread of *-au* at the expense of *-ai* in the *-i*-stem locatives in Sanskrit (*agnau* 'in the fire' after *ṣatrau* beside *ṣatrus* 'enemy') and in the perfects of *ā*-stems (*dadau* 'he gave' : Hittite *da-a-i* 'he takes').

### Syllabic *w*

62d. *ḫu-(u)-kán-zi*, pret. 1 pl. *ḫu-u-ga-u-en* (KUB 18.12.1.13), part. *ḫu-u-kán-du-uš* (KUB 25.27.2.23) *ḫu-u-ga-an-da-aš* (Kub 7.1.2.13), infin. *ḫu-u-kán-na* (KUB 17.24.2.14) *ḫu-ga-an-na* (KUB 31.57.1.15), 'set free from witchcraft' : ἄγγυμι 'break', 'εἰγγεν < ἦ-φαγγεν.

IH γω'g-.

*nu*, sentence connective : Skt. *nu*, *ν* 'now, and', OCS *nъ* 'however'. IH *nu*.

*pa-aḫ-ḫur pa-aḫ-ḫu-ur* 'fire'.<sup>33</sup>

IH *péxwr*.

*pa-aḫ-ḫu-ni*, dat.<sup>33</sup>

IH *péxwnéi*.

*i-ú-kán i-ú-ga-an* 'yoke' : Skt. *yugam*, ζυγόν, Lat. *iugum*.

IH *ywgóm*.

*gi-e-nu* 'knee' : Lat. *genū*,<sup>34</sup> γόνυ, Skt. *jānu*.

IH *génw*.

*pa-an-ku-uš* 'all, whole; senate', *pa-(a)-an-ku-un* : Skt. *bahus* 'abundant, much', παχύς 'thick, large'.

IH *b'wng'éws*.

*te-pu-uš* (KUB 29.8.1.34), neut. *te-(e)-pu* 'small' : Skt. *dabhras* 'small', *ad-bhutas* 'wonderful'.

IH *d'éb'ws*.

Imperative endings of third singular and third plural, e.g. *ar-nu-ud-du*, *ar-nu-an-du* 'let him (them) bring' : Skt. *ṛṇotu*, *ṛṇwantu* 'let him (them) move, attain, present'.

IH *'ṛnéwtu*, *'ṛnwéwtu*

Causative suffix *-nu-* in plural forms, e.g. *ar-nu-um-me-ni* 'we bring' : Skt. *ṛṇumas*.

IH *'ṛnwémés* < pre-IH *'ṛnwéws* [69].

### Syllabic Nasals

63. We have found reason to interpret acc. pl. *-us*, 1 sg. pret. *-un*, and acc. sg. *-un* as representing IH *-ṛs* and *-ṛn*. We must now give the evidence for that conclusion in greater detail and combine it with the remaining evidence. The three endings occur as follows.

Accusatives plural masculine, such as: *ad-du-uš* 'fathers', *an-tu-uḫ-šu-uš* 'men', *tu-uz-zi-uš* 'armies', *me-ik-ku-uš me-ig-ga-uš* 'magnos', *pár-ga-u-us* 'altos', *ḫu-u-ma-an-du-uš* 'omnes', *ḫé-e-ú-uš* 'imbris', *da-a-ma-uš* 'alios'.

First persons singular preterit, such as: *e-šu-un*, *še-e-šu-un*, *e-du-un*, *ku-e-nu-un*, *e-ip-pu-(u)-un*, *e-ku-un*, *ḫar-ku-un*, *li-in-ku-un*, *pu-(u)-nu-uš-šu-un*, *ar-nu-nu-un*, *uš-ki-nu-un*, *i-ya-nu-un*, *ḫa-at-ra-a-nu-un*, *a-ar-(aḫ)-ḫu-un*, *ši-pa-an-da-aḫ-ḫu-un*.

A few accusatives singular personal of pronouns, namely: *u-ni-in* [190] 'eum', *ku-u-un* 'hunc', *a-pu-(u)-un* 'eum'.

The first group have been thought to come from original *-ons*, the second

<sup>32</sup> So Pedersen, Hitt. u. IE 40 (1938).

<sup>33</sup> IHL 36 f. and references (1942).

<sup>34</sup> On the strange final *-ū* in Latin, see Sommer, Hdb. d. lat. Laut- und Formenlehre<sup>2</sup> 391 f. (1914).

from *-om*, and the third also from *-om*. The chief difficulty with this theory is that *o*-stem nouns and thematic verbs are far less common in Hittite than in the historical Indo-European languages. There is excellent reason to believe that these two types of inflection became more frequent during the pre-Indo-European period and also during the separate life of the historical languages; it is unlikely that they were numerous enough to set the pattern for all accusatives plural personal and for all first singular preterits in Hittite.

Furthermore, the enclitic pronoun *-aš* 'is', *-at* 'id', *-an* 'eum' certainly comes from IH *-os*, *-od*, *-om*, whence, by combination with sentence connective *to-*, Hitt. *ta-aš*, *ta-at*, and *ta-an*, IE *tod* and *tom*.<sup>35</sup> Since IH *-om* yields Hitt. *-an* (constant in hundreds of examples), *ku-u-un* cannot safely be traced to IH *\*kom*.

If we turn to IE consonant stems for a hint, we come upon Skt. *salas*, *ōvras*, Lat. (*prae*)*sentēs*, etc., from IE *sn̥t̥s*. It seems likely, therefore, that Hitt. *-us* comes from *-ns* rather than from *-ons*.

Similarly, non-thematic verbs present such forms as these in the first singular preterit. *ḡa* > *ēā* 'I was', *ḡia* 'I went', *ḡσθησα* 'I set', *ḡειξα* 'I showed'. Sanskrit shows final *-am* in most of the corresponding forms but surely does not represent inherited *-om* except in thematic stems. It is probable, then, that Hitt. *-un* comes from syllabic *-m* in the verb forms. In view of the contrast between *ta-an* 'et eum' and *ku-u-un* 'hunc', it is safer to derive the former from *-om* and the latter from syllabic *m*.

**63a.** The evidence of other words suggests rather that syllabic *n* became Hitt. *an* or, before *s*, either *ant* or *a*; perhaps we should reconstruct IH *ʷn*.

20-*an-ki* 'twenty times' : *ἐπτάκι*.<sup>36</sup>

IH *septənki*.

*an-da*, *an-da-an* 'in, within' : OLat. *endo*; cf. Umbr. *an-* beside *en-* as a verbal prefix.

IH *ʷn-*.

*an-dur-za* 'within'. Friedrich<sup>37</sup> has shown that this word stands in frequent opposition to *a-ra-aḫ-za* 'outside'. The case for original Hitt. *\*an-dur* = Lat. *inter* is strengthened by the existence of a derivative adjective *an-dur-ri-ya-aš* (KUB 6.1.8) *an-tu-u-ri-[e-e]š* (KBo. 5.3.1.7) 'native, domestic' contrasting with *a-ra-aḫ-ze-na-aš* 'foreign'. This *an-dur-* shows the same initial vocalism that we have in Osc.-Umbr. *anter*.<sup>38</sup>

IH *ʷntr*.

*pa-an-ku-uš* 'all, whole; senate' : Skt. *bahus* 'much', *παχὺς* 'thick' [81].

IH *bʷngʷws*.

*an-za-a-aš*, dat.-acc. pl., *an-zi-el*, gen. pl., *an-zi-da-az*, abl. pl. of *ú-e-eš* 'we' (from IH *ʷns* plus nominal endings) : Goth. *uns*, Skt. *asmān*, Aeol. *ἄμμε* 'us'.

*ku-wa-aš-ki-it* (KBo. 2.5.4.18; KUB 14.14.1.26) 'he was striking' : *ku-en-zi*.

IH *kwnsket*.

<sup>35</sup> It may be asked: if IE *tom* comes from *\*to* plus *om*, why isn't the result *\*tōm*? Perhaps the best answer is this: after a final vowel, initial *o* of the enclitic was lost; hence *\*to-m*, *\*to-d*, etc.

<sup>36</sup> Pedersen, Hitt. u. IE 174 (1938). My former connection of these words with *me-ik-ki-iš* is improbable.

<sup>37</sup> Vertr. 1.167-70 (1926).

<sup>38</sup> Sturtevant, Lang. 19.303 and fn. 56 (1943).

Syllabic *r* and *l*<sup>39</sup>

64. *hu-u-ur-ki-el* (KBo. 6.26.3.23, 53) *hu-(u-)ur-ki-il hur-ki-il* 'death penalty': *har-ak-zi* 'is destroyed': OIr. *orgaim* 'ich schlage, erschlage'.<sup>40</sup> IH *Hrgēl*.  
*an-dur-za* 'within' < \**an-dur* [63a]: Osc.-Umbr. *anter*, Lat. *inter*. IH 'vnt.  
*hur-ta-iš* 'curse', *hur-da-i* 'curses', *durat*. *hur-za-ki-iz-zi*: εἶπω 'say' (from *εἶπω*), perf. εἶρηκα (from *εἶρηκα*), Goth. *waúrd* 'word'.<sup>42</sup> IH *γwrd* '-.

o plus *r* or *l*

65. Beside these instances of *ur* for IH syllabic *r*, we find instances of *ar* and *al*, perhaps to be interpreted as from *or* and *ol*.

- kar-ta-aš* (VBoT 58.1.23), *kar-di*, abl. *kar-ta-az*,<sup>43</sup> inst. *kar-di-il* (KUB 30.10.1.24, 27) from *ki-ir* 'heart': Lat. *cordis*. IH *kardós*.  
*a-ar-aš-ki-iz-zi* (VBoT 24.1.32), *a-ar-aš-ki-il* (KBo. 3.4.3.70; KUB 1.6.2.7, 19.11.4.5) 'be arriving': Skt. *rcchati* 'goes, sends'. IH 'vrskety.  
*ar-nu-uz-zi* 'brings': Skt. *ṛnoti*, ὀρνυσι. IH 'vnrnewty.  
*e-eš-har e-eš-ha-ar* (KUB 17.28.2.2.): εἶαρ (from *ἡᾶρ*), Skt. *asrk* 'blood'. IH *E'égysv*.<sup>44</sup>

*ku-ut-tar* 'neck, strength': Lat. *guttur*.

- pal-ḫi-iš* (KUB 4.4.2.13), *pal-ḫi-i-in* (KUB 17.28.1.19), *pal-ḫi*: Skt. *prthus*, *πλατύς* 'broad', Lat. *plānus* 'flat', Lith. *plónas*<sup>45</sup> 'thin'. IH *płx* '-.

The interpretation of Hitt. *an*, *ar*, and *al* as containing the reduced vowel *o* is admittedly merely a makeshift, since *un* and *ur* demonstrably represent syllabic *m*, *n*, and *r*. If a better solution of the problem can be found, I shall be pleased.

Consonantal *n*

66. *ha-an-na-aš* 'grandmother': ἀννίς 'grandmother', Lat. *anus* 'old woman', OHG *ana* 'grandmother'. IH *xenos*.

*ha-an-za* 'front', dat. *ha-an-ti-i* 'in front': ἀντι 'opposite', Lat. *ante* 'before'.

IH *xents*, *xenty*.

- ha-a-ra-aš*, gen. *ha-ra-na-aš* 'eagle': OHG *aro* *arn* 'eagle', Lith. *erēlis* 'eagle', ὄρνις. IH *γorn* '-.

*ḫi-in-kán hé-en-kán ḫi-en-kán* (HT 1.2.29) 'fate, pestilence', *ḫi-in-ik-zi ḫi-in-ga-zi ḫi-ik-zi*, pret. *ḫi-en-ik-ta* (KBo. 6.29.1.21; KUB 8.59.5) 'fix, determine': OIr. *ēcen* 'necessity', Welsh *anghen angen* 'necessity, fate, destiny'.<sup>46</sup> IH *γenkvn* '-.

- ga-an-ki*, *kán-ga-aḫ-ḫi ga-aḫ-ga-aḫ-ḫi* 'hang', part. *kán-kán-za* (KUB 17.10.4.28): OHG *hāhan*, OE *hōn* 'hang'. IH *konke*.

*gi-e-nu*: Lat. *genū* 'knee'.

IH *génw*.

*ku-en-zi*: Skt. *hanti* 'strikes'.

IH *g'wenty*.

<sup>39</sup> Oswald Szemerényi, *Anal. Orient.* 1.14-16 (1942).

<sup>40</sup> IHL 57 (1942).

<sup>42</sup> IHL 49 f. (1942).

<sup>43</sup> Sommer, *Bil.* 95 (1938).

<sup>44</sup> Cf. Sturtevant, *Lang.* 16.86 (1940), IHL 48 f. (1942).

<sup>45</sup> IHL 42 (1942).

<sup>46</sup> Pedersen, *Hitt. u. IE* 183 f. (1938); IHL 49 (1942).

- na-a-i* 'leads' : Skt. *nināya* 'he led'. IH *ne'ye*.  
*na-at-ta* 'not', *ni-ik-ku* (KUB 24.8.2.16, 17, 18) 'neque'. IH *Anṽ- Ane-*.  
*ne-ku-uz* 'bed-time, evening' : Lat. *nox, noctis* 'night'.<sup>47</sup> IH *nekwtš*.  
*ne-pt-iš* : Skt. *nabhas*, OCS *nebo* 'sky'. IH *neb'es*.  
*ne-e-u-it*, inst. of *\*newaš* 'new', *ne-wa-aḫ-ḫi-ir* 'they renewed' : Lat. *novus*,  
*novāre*. IH *newo-*.  
*nu*, sentence connective : Skt. *nu* 'now, therefore, indeed, certainly'. IH *nw*.  
*ši(-ip)-pa-an-ti* : *σπένδει* 'pours a libation'. IH *sponde*.  
**66a.** Hitt. *la-a-ma-an* 'name' beside Skt. *nāma*, Lat. *nōmen* may owe its *l* to  
dissimilation. IH *nōmən*.

#### *n* in Certain Consonant Clusters

- 67.** *mn* > *m(m)*. Frequently analogy restored *mn*.  
*mi-im-ma-i*, pret. *mi-im-ma-aš* 'refuse' : *μῖμνω, μεμένηκα* 'remain, stay'.  
*me-ma-(a)-i me-im-ma-i* (KUB 17.28.2.39, 55), *me-ma-an-zi me-im-ma-an-zi*  
(KBo. 6.3.3.21), *me-im-ma-aš* (KUB 14.2.1.10, 3.2.37) 'say' : Dor. *μένῶμαι*,  
Lat. *meminī*.  
In general these two verbs are distinguished by *-mm-* for the meaning 'refuse'  
and *-m-* for the meaning 'say'; but the exceptional spellings indicate that *-m-*  
was pronounced in the same way in both.  
*ar-ru-um-ma-aš* (KBo. 5.1.4.15) 'of washing' : nom. sg. *ar-ru-mar*.  
*ar-nu-um-ma-aš* (KUB 2.1.2.28) 'of bringing' : nom. sg. *a-ar-nu-mar*.  
But: *lam-na-aš* (VBoT 2.17), gen. sg. of *la-a-ma-an* 'name'; *lam-ni-ya-an-zi*,  
etc., denominative verb from *la-a-ma-an*.  
*lam-ni-i* (KBo. 5.3.2.35), dat. sg. of *lam-mar* 'hour'.

*nm* > *m(m)*

*ku-e-mi* 'I strike' beside *ku-en-zi* : Skt. *hanmi* beside *hanti*.

*ša-aḫ-ḫa-mi-it* *ša-aḫ-ḫa-me-it* beside *ša-aḫ-ḫa-an*.

*la-a-am-ma-a-mi-it* (KUB 1.16.3.13) for *la-a-ma-an-me-it* 'my name'.<sup>48</sup>

*tn'* > *n(n)*.<sup>49</sup>

*ap-pa-an-na-aš*, gen. of *ap-pa-a-tar* 'a taking'.

*pa-ap-ra-(an)-na-aš* (KUB 7.53.1.8), gen. of *pa-ap-ra-tar* 'uncleanness' [98].

But: *ḫu-it-na-aš*, *ḫu-it-ni-it* (KUB 26.19.2.44) from *ḫu-u-i-tar* 'the animals'  
[98].

*ut-ne-e ut-ni-e ut-ni* 'country' [127].

IH *wd'ne*.

Final *n* is occasionally omitted where no phonological reason appears; e.g.  
acc. *ḫar-na-a-ú* (KBo. 5.1.1.7, 12, 31, 39) 'birth chair', neut. nom.-acc. *mar-ša*  
(KBo. 5.2.4.64) 'bad', neut. nom.-acc. *pal-ḫa* (KUB 17.6.1.6) 'broad'. Probably  
the loss of final *n* in such forms is due to the analogy of nominative-accusative

<sup>47</sup> IHL 27 (1942).

<sup>48</sup> Sommer, Bil. 141 (1938).

<sup>49</sup> Ib. 77 and fn. 2.

singular neuter of other than *a*-stems; e.g. *šu-up-pt* 'clean', *ḫa-aš-ta-i* 'bone, skeleton', *i-da-a-lu* 'bad', *ud-ne-e* 'country', *wa-aš-tul* 'sin', etc.

#### Consonantal *m*

68. Consonantal *m* remains in Hittite, except that in final position it becomes *n*.

dat.-acc. *am-mu-uk*, gen. *am-me-el am-mi-el*, abl. *am-me-e-da-az* from *ú-uk* 'I' : *émé*, Skt. *mām*, Lat. *mē*.

*-me-iš -mi-iš*, neut. *-me-it -mi-it* 'my' : Skt. *me*, *μοι*, Lat. *mī fili* 'my son'.

*gi-im-ma-an-za* 'winter' : Skt. *hemantas*, *χειμα*, Lat. *hiems*, Lith. *žiemà* 'winter'.

*la-a-ma-an* 'name' : Skt. *nāma*, Lat. *nōmen* [66 a].

*-ma* 'however, but' : Thess. *-μά* 'however'.

*ma-aḫ-ḫa-an* 'when, as, if' : Dor. *μάν* 'truly, surely'.<sup>50</sup> IH *mexm*.

*ma-al-la-i*, *ma-al-la-an-zi* 'grind, break' : Lat. *molo*, Goth. *malan* 'grind'.

IH *mol*.

*mar-kán-zi*, pret. *ma-ra-ak-ta* 'cut up' : OE *mearh* 'sausage'.

IH *merk*.

*me-ik-ki-iš* : *μέγας*, Lat. *magnus*, Goth. *mikils* 'great'.

IH *meg*.

*mi-li-it* 'honey' : Lat. *mel*, Goth. *miliþ*.

IH *mēlyt*.

*mi-ir-zi* (IBoT 1.36.1.53), *me-ir-ta* (VBoT 24.3.43; KUB 29.1.2.40), *me-ir-du*, part. *me-ir-ra-an-da* (VBoT 24.3.27, 30) 'die' (?) : Lat. *morior*.

IH *mer*.

*ši-ip-ta-mi-ya* (KBo. 5.1.4.35) : Lat. *septimus* 'seventh'.

IH *septmo*.

#### IH *m* from earlier *w*<sup>50a</sup>

69. Hittite has several pairs of equivalent suffixes beginning with *w* or *m*, namely, first plural primary endings *-u-e-ni* : *-me-ni*, first plural secondary endings *-u-en* : *-me-en*, infinitive endings *-wa-an-zi* : *-ma-an-zi*, suffixes forming verbal nouns *-wa-ar* (gen. *-wa-aš*) : *-mar* (gen. *-ma-aš*). With few and readily explainable exceptions, the suffixes with initial *m* occur after *u* and those with initial *w* in all other positions. Such a form as Hitt. *ar-nu-um-me-ni* 'we bring' < IH *\*arnw-wény* may have become quadrisyllabic by the analogy of 2 pl. IH *\*arnw-tény*, thus yielding syllabic *w* before consonantal *w*. This distinction must be original, since it obviously depends upon form; the very different distribution which assigns initial *w* to first dual and initial *m* to first plural in Indo-Iranian, Germanic, and Balto-Slavic must be secondary. A powerful support of this position is furnished by the fact that in Indo-Iranian the suffix *-mant* is largely confined to *u*-stems and *-vant* is added to other types of stem. We must evidently posit a very early change of *w* to *m* after syllabic *w* (cf. Hitt. *pa-a-u-wa-an-zi* 'to go' : *wa-aḫ-nu-um-ma-an-zi* 'to turn', Skt. *sakhivant-* 'having friends' : *vasumant-* 'having goods'). Besides the present stems in *u*- (especially the causative *nu*-stems), such forms as Hitt. *tum-me-ni* 'we take' beside *da-a-i* 'he takes' require pre-IH *dwh-weni* > IH *dwmény*.

<sup>50</sup> IHL 39 and fn. 14 (1942).

<sup>50a</sup> Sturtevant, AJP 50.360-9 (1929), TAPA 60.33 f. (1929), Lang. 7.170 (1931), HG<sup>1</sup> 114-6 (1933), IHL 26 f. (1942); H. H. Bender, The Suffixes *-mant* and *-vant* in Sanskrit and Avestan, esp. pp. 11, 24, 27, 81 (1910).

The parallelism of Luw. pres. 1 sg. *-wi*<sup>50b</sup> with Hitt. and IE pres. 1 sg. *-mi* may point to a similar development, which has been obscured by the spread of *-mi* to cover all the territory in Hittite and also in the Indo-European languages, while the original form *-wi* has survived in Luwian.

IH final *m* becomes Hittite *n*.

70. Nominative-accusative singular of *a*-stem neuter nouns and adjectives:  
*pí-e-da-an* 'place': *πέδον*, Umbr. *peřsum*, *persom-e* 'ground'. IH *pedom*.  
*i-ú-kán* 'yoke': Skt. *yugam*, Lat. *iugum*. IH *ywgóm*.

Hitt. accusative singular masculine ends in *-n*: *at-ta-an* 'patrem', *an-tu-uh-ša-an* 'hominem', *ku-in* 'quem', *šu-up-pí-in* 'purum', *li-in-ga-in* 'oath', *i-da-a-lu-un* 'malum', *hu-u-ma-an-da-an* 'omnem', *zé-e-an-da-an* 'coctum', *ka-aš-ta-an* 'famem'.

The Hitt. first singular preterit active ends in *-un*: *pa-a-un* 'I went', *e-šu-un* 'I was', *še-eš-šu-un* 'I slept', *e-du-un* 'I ate', *ku-e-nu-un* 'I struck', *e-ip-pu-(u)-un* 'I took', *har-ku-un* 'I had', *har-ni-in-ku-un* 'I destroyed', *ú-e-te-nu-un* 'I built', *ar-nu-nu-un* 'I bought', *uš-ki-nu-un* 'I was seeing', *ak-ku-uš-ki-nu-un* 'I was drinking', *i-ya-nu-un* 'I made', *za-aḫ-ḫi-ya-nu-un* 'I fought', *ḫa-an-da-nu-un* 'I established', *a-ar-(aḫ-)ḫu-un* 'I arrived', *ši-pa-an-da-aḫ-ḫu-un* 'I poured a libation', *da-aḫ-ḫu-un* 'I took', *te-iḫ-ḫu-un* 'I placed', *u-uh-ḫu-un* 'I saw'.

For IH *mn* and *nm* see [67].

#### Consonantal *r*

71. Initial *r* does not occur in Hittite, and no words that in Proto-IE contained initial *r* have been detected in our Hittite documents.<sup>51</sup>

72. Medial and final *r* remain in Hittite. We have discussed IH syllabic *r* and *ɾ* above [64, 65].

- (*a*-)*ar-aš-zi* 'flows': Skt. *arṣati* 'flows', *ἐξέρᾱω* 'pour out'. IH 'ers-  
*a-ru-wa-(a)-iz-zi* 'bow down': *ἀράομαι* 'pray, curse' [233]. IH *ʔɾwéhyo*.  
*ḫa-a-ra-aš*, gen. *ḫa-ra-na-aš*: OHG *aro arn* 'eagle', *ὄρνις* 'bird', Lith. *erėlis* 'eagle'. IH *γorn*.  
*ḫar-zi*, *ḫar-kán-zi* 'have': Lat. *arceō* 'hold, enclose; keep away', *arx* 'citadel', *ἀρκέω* 'ward off; be strong enough, suffice'.<sup>52</sup> IH *xerk*.  
*ḫar-ki-iš* 'white': Skt. *arjunaś* 'white', *ἀργυ-κέραυνος* 'with bright thunderbolt', Lat. *argentum* 'silver'. IH *xergy*.  
*ir-ḫa-(a)-aš*, *ar-ḫa-an* (KUB 29.30.3.10) 'boundary, territory': Lat. *ōra* 'border, boundary',<sup>53</sup> Skt. *ārāt* 'from afar', *āre* 'far'. IH *Eeyr*.  
*iš-pár-ri-ya-az-zi* *iš-pár-ri-iz-zi*, *iš-pa-a-ri* 'spreads, tramples': *σπείρω*, *ἐσπάρην* 'scatter, strew, sow'.

*ka-a-ri* (KBo. 3.4.3.17, 4.4.4.3, 5.6.4.14; KUB 14.3.2.18, 19, 14.15.4.32)

<sup>50b</sup> Sommer, AU 231 and fn. 1 (1932).

<sup>51</sup> Friedrich, Hethitisch 26, Elementarb. 8 (1940).

<sup>52</sup> Götze-Pedersen, MS 50; IHL 40 and fn. 21.

<sup>53</sup> IHL 48 and fn. 43 (1942).



'concession', *ka-ri-ya-aḥ-ḥa-ḥa-at* 'I gratified': *χάρις* 'grace, favor', *χαίρω* 'be glad'.  
IH *g'ehr-*

*kat-te-ir-ra-aš* (KUB 17.14.4.17) 'lower': Skt. *adharas*, Lat. *inferus* 'lower',  
Goth. *undarō* 'under'. IH *-ero-*

*ku-ir-zi* (KUB 7.1.1.12), *ku-e-ir-ta* (KBo. 3.16.1.13), *ku-ra-an-zi* 'cut': Lat.  
*curtus* 'mutilated'.

*kar-aš-zi* (KBo. 6.3.4.18, 11.1.24, 12.1.15), *kar-ša-an-zi* (KUB 20.10.4.8),  
*kar-šu-un* (KUB 30.10.1.15) 'cut off': *ἀκερσεκόμης* 'long-haired'.

*mar-kán-zi* 'they cut up': OE *meorh* 'sausage'. IH *merk-*

*pa-ra-a* 'forth, forward': *πρό*, Lat. *prō*. IH *pro-*

*ta-ru-ú-i* (dat., BO 4363.1.9), *GIŠ-ru* (passim)<sup>54</sup>: *δόν* 'log, tree'. IH *dorw-*

*wa-ar-ap-zi*, *wa-ar-(ap-)pa-an-zi* 'wash' (especially with soap): OE *sweorfan*  
'scrub'. IH (s) *werp-*

Endings of verbal and other neuter nouns in suffixes *-dar*, *-šar*, *-war-*, *-ur*,  
*-mar* [95, 96, 98, 101].

Endings of pret. 3 pl. *a-ú-(e-)ir* 'they saw', *ar-nu-(e-)ir* 'they brought', *e-te-ir*  
'they ate': Lat. *ēdēre*, *dīxēre*, etc.

Middle endings with appended *-ri*, e.g. *i-ya-at-ta(-ri)* 'he goes', *ki-it-ta(-ri)*  
'he lies', *e-ša-an-ta(-ri)* 'they sit': Lat. *amatur*, *amantur* [279].

### Consonantal *l*

**73.** Consonantal *l* remains in Hittite.

*al-pa-aš* (KUB 19.14.1.9) 'cloud': *ἀλφός*, 'dull white leprosy', Lat. *albus*  
'white'.<sup>55</sup> IH *helb'os* or *ʔalb'os*.

*la-a-i* (KUB 1.13.1.6), *la-a-an-zi*, pret. 1 sg. *la-a-ú-un* (KUB 7.1.3.20, etc.)  
'unfasten, loose': *λύω* 'loose', Lat. *solvo*.

dat. *la-aḥ-ḥa* *la-aḥ-ḥi*, abl. *la-aḥ-ḥa-az* 'campaign, war': *λαός*, Att. *λαός* 'army',  
people<sup>56</sup> (cf. *Λαφο-πτολεμος*, *φιολαφος*). IH *lex-* 'war'.

*la-ḥu-uz-zi*, imper. *la-aḥ-ḥu-tin*, *la-(aḥ-)ḥu-u-wa-i* 'pour', *la-aḥ-ḥu-uš* 'basin':  
*λόω*, *λούσω*, Lat. *lavit abluīt lāvīt* 'wash'. IH *léxwty*, *lxwéty*; *léxwe*, *loxws*.

*la-a-ki* 'causes to fall', *la-ga-a-ri* 'lies', *ša-li-(i-)ga* 'lies with, defiles'<sup>57</sup>: *λέχος*,  
Lat. *lectus* 'bed', *ἄλοχος* 'wife', Goth. *ligan* 'lie'. IH *log'e*.

*li-in-ga-in* (acc.) 'oath', *li-in-ga-zi* *li-ik-zi*, pret. *li-in-ku-un*, *li-ik-ta* *li-in-ik-ta*,  
*li-en-ga-u-en* (HT 1.1.43) 'swear': *ἐλεγχος* 'test, disproof', *ἐλέγχω* 'examine',  
confute'.

*li-(ip-)pa-(a-)an-zi* 'they smear': Skt. *limpati* 'smears', *λίπος* 'animal fat'.

*lu-uk-zi* 'kindles', pret. *lu-uk-ta*, *lu-uk-ki-e-ir*, part. *lu-uk-kán*: Skt. *rocate*  
'shines', *λευκός* 'bright', Lat. *lūceo* 'shine'. IH *léwkty*, *lwkénty*.

*ma-al-la-i*, *ma-al-la-an-zi* 'grind': Lat. *molō*, Goth. *malan*. IH *mol-*

*mi-li-it* 'honey': Lat. *mel*, Goth. *miliþ* 'honey'. IH *melyt*.

<sup>54</sup> Ehelolf, OLZ 36.7 (1933).

<sup>55</sup> IHL 58 (1942).

<sup>56</sup> IHL 35 (1942).

<sup>57</sup> Sturtevant, Lang. 12.189 f. (1936).

## Laryngeals

IH *x*

74. The first of the laryngeals to be recognized in Hittite and to be identified with one of Ferdinand de Saussure's<sup>58</sup> coefficients sonantiques, was Hitt. *ḫ*,<sup>59</sup> in which Kuryłowicz recognized one value of Saussure's A. For this A he proposed to write *a*<sub>1</sub> in case Hittite showed zero and the related languages retained the vowel *ē*, *a*<sub>2</sub> in case Hittite showed *ḫ* and the historical languages, including Hittite, had the vowel *ā*. Not until seven years later was it recognized that Hittite *ḫ* denotes two separate phonemes: *ḫ*(*h*) = voiceless *x*; *ḫ* consistently written single = voiced *γ*.<sup>60</sup>

We are here assuming that the Hittite system of writing was taken from Hurrian at a very early date [5, 6]. The Hurrian texts are written not only in cuneiform characters of nearly the same type that appear in Hittite but also in the Ras Shamra alphabet, which shows that *ḫ*(*h*) = *x* (a voiceless velar spirant) and *ḫ* = *g* (a voiced velar spirant).<sup>61</sup>

IH *x* becomes Hitt. *ḫḫ* between written vowels, *ḫ* initial or next a written consonant. IH *e* next to *x* was pronounced *a*, and upon the loss of *x* (regularly in Proto-IE, and under certain circumstances in Hittite) such an allophonic *a* gained phonemic value. For other sources of a phoneme *a* in Hittite, see [76].

*ḫu-uḫ-ḫa-aš* 'grandfather': Lyc. *uga-* 'grandfather',<sup>62</sup> Lat. *avus*. IH *xewxos*.

dat. *la-aḫ-ḫa la-aḫ-ḫi*, abl. *la-aḫ-ḫa-aš* 'campaign, war': λᾱός, Att. λείος 'army, people' (cf. Δαροπτόλεμος, φιλαφος). IH *lex-* 'war', *lexwos* 'army'

*la-ḫu-uz-zi*, imper. *la-aḫ-ḫu-ut-tin*, *la-a-ḫu-i*, *la-(aḫ-)ḫu-u-wa-i* 'pour', *la-aḫ-ḫu-uš* 'basin'<sup>63</sup>: λῶω λουσῶ, Lat. *lavit abluīt, lāvit, lautus, ablūtus* 'wash'. Hitt. *la-aḫ-ḫu-uz-zi* comes from IH *léxwty*. Lat. *lavit* is from IH *laxwēti* > IE *lāwēti*. Hitt. *la-a-ḫu-i* and Lat. *lāvit* represent IH *laxwe* > IE *lāwe*.

*na-aḫ-mi*, *na-aḫ-te-ni*, *na-aḫ-ḫu-un*, *na-aḫ-ḫa-an-za* 'fear', *na-aḫ-ša-ra-aš* 'fear, reverence', *na-aḫ-šar-nu-ut* 'he frightened': OIr. *nār* 'bashful' (from IE *nāsros*).

IH *néxty*.

*pa-aḫ-ḫa-aš-mi*, *pa-aḫ-ša-an-zi*, *pa-aḫ-ḫa-aš-te-en*, *pa-aḫ-šir* 'protect': Skt. *pā-*

<sup>58</sup> Recueil des publications scientifiques, 127 = Mémoire sur le système primitif des voyelles dans les langues indo-européennes 134 f. (1879).

<sup>59</sup> Jerzy Kuryłowicz, Symb. Gramm. 95-104 (1927). An article of somewhat similar content was published in the same volume by Albert Cuny, but I have never been able to obtain a copy of it. When I requested one of the author, he sent me several other works of his. Consequently I have not been able to discover whether any of the credit here given to Kuryłowicz should properly be given to Cuny.

<sup>60</sup> Sapir, Lang. 10.276 fn. 4 (1934).

<sup>61</sup> Speiser, Introduction to Hurrian 45-7 (1941).

<sup>62</sup> Pedersen, Lyk. u. Hitt. 25 f. (1945). For a fuller discussion of this and the following etymologies, see IHL 35-42 (1942).

<sup>63</sup> I have record of 5 verb forms with *ḫḫ*- between vowels and about 50 with *-ḫ-* between vowels. The noun *la-aḫ-ḫu-uš* is written with *ḫḫ*. Couvreur, Hett. *Ū*. 192 f., argues from the phrase *a-ar-ru-ma-aš la-aḫ-ḫu-uš* 'wash-basin' in KUB 3.94.2.17 that the word *la-aḫ-ḫu-uš* by itself has no connection with pouring water. Cf. Pedersen, Hitt. u. IE 189.

*ti* 'protects', Lat. *pābulum* 'fodder', *pāscō* 'feed', sup. *pāstum*, *pāstor* 'shepherd', OCS *pasq* 'I pasture'. IH *péx-s-*.

*pa-aḫ-ḫur pa-aḫ-ḫu-ur pa-aḫ-ḫu-wa-ar*, gen. *pa-aḫ-ḫu-e-na-aš*, dat. *pa-aḫ-ḫu-e-ni pa-aḫ-ḫu-ni*, abl. *pa-aḫ-ḫu-na-az* 'fire': πῦρ, πυρός, Umbr. *pir*, Oİcel. *fūr*, Goth. *fōn*, *funins*. These forms require IH *péxur*, *péxwōr*, *péxwōs*, *péxwény*, etc.

*pār-aḫ-zi pār-ḫa-zi, pār-ḫa-an-zi, pār-aḫ-ta, pār-ḫu-en, pār-ḫi-ir, pār-aḫ-ḫi-iš-kán-zi, pār-aḫ-ḫi-eš-kán-du* 'drive, ride': περάω πέρυγημι 'cross', Goth. *faran farjan* 'travel'. IH *perx-*.<sup>64</sup>

*ša-an-aḫ-zi ša-an-ḫa-zi, ša-an-ḫa-an-zi, ša-an-aḫ-ta, ša-an-ḫu-un ša-an-aḫ-ḫu-un*, durat. *ša-an-aḫ-ḫi-eš-ki-ši* 'approach, attack, ask for, try': Skt. *sanoti*, aor. *asāniṣam* (RV), part. *sātas*, agent noun *sanitā* 'gain', ἀνίσω, Att. ἀνίσω, ἡνεσα 'accomplish'.

*tar-aḫ-zi, tar-aḫ-ḫu-un tar-ḫu-un, tar-aḫ-ḫi-ir* 'be powerful, control, can': Skt. *tārati tīrāti*, aor. *dtārīt*, part. *tīrñás tīrñás* 'cross', Lat. *intrāre*.

The factitive suffix *-ḫ-* in Hittite denominative verbs beside IE denominative *-ā-* verbs.

*a-ra-(u)wa-aḫ-ḫi, a-ra-u-wa-aḫ-ḫu-un* (BO 4889.1.53; Goetze, Kizzuw. 64), *a-ra-wa-aḫ-ḫi-ir*, part. *a-ra-wa-aḫ-ḫa-an* (KUB 26.43.2.13, 26.50.2.5): *a-ra-u-(wa)-aš* 'free'.

*iš-ḫi-ú-la-aḫ-ḫa-an-zi, iš-ḫi-ú-ul-la-aḫ-ḫu-un : iš-ḫi-ú-ul*, gen. *iš-ḫi-ú-la-aš* 'obligation, obligatory'.

*i-da-la-u-wa-aḫ-mi, i-da-la-(a)wa-aḫ-ti, i-da-la-wa-aḫ-zi HUL-la-wa-aḫ-zi, i-da-(a)la-wa-aḫ-ḫu-un : i-da-(a)lu-uš* 'bad'.

*kat-te-ir-ra-aḫ-ta, kat-te-ir-ra-aḫ-ḫi-ir : kat-te-ir-ra-aš* (KUB 17.14.4.17) 'lower'.

*ne-wa-aḫ-ḫu-un, ne-wa-aḫ-ḫi-ir, ne-wa-aḫ-ḫa-an-du*, part. *ne-u-wa-aḫ-ḫa-an : ne-e-u-it* (inst.) 'new': νεᾶν from νέος, Lat. *novāre* from *novus*.

*ša-ra-a-az-zi-ya-aḫ-te-ni, ša-ra-a-(az-)zi-ya-aḫ-ta, ša-ra-az-zi-(ya)-aḫ-ḫa-an-du : ša-ra-az-(zi)-iš*, dat. *ša-ra-a-az-zi-ya* 'upper'.

*šu-up-pí-ya-aḫ-mi, šu-up-pí-(ya)-aḫ-ḫi, šu-up-(ya)-aḫ-ḫa-an-zi : šu-up-pí-in, šu-up-pí* 'clean, pure'.

*dan-na-at-ta-aḫ-ḫu-un : dan-na-at-ti-iš, dan-na-at-ta-an* 'empty'.

*ta-a-an pí-e-da-aš-ša-aḫ-ḫi-ir : da-a-an pí-e-da-aš* 'of second rank'.

midd. pres. *ši-ú-ni-(ya)-aḫ-ta*, pret. *ši-ú-ni-ya-aḫ-ḫa-ti* 'become possessed (insane)': *ši-ú-na-aš DINGIR-LIM-iš* 'god'.

*pa-ap-ra-aḫ-ḫu-un* (KUB 30.10.1.14), *pa-ap-ra-aḫ-ta, pa-ap-ra-aḫ-ḫi-iš-kir : pa-ap-ra-tar* 'uncleanness'.

The IH suffix *-x-*, which formed factitive verbs, changed a preceding *e* to *a* and, if a consonant followed, lengthened it. Hence IH *newe-x-ty* 'he renews' became IE *newāti*. That is the reason why so many IE factitive verbs in stem vowel *-ā-* seem to be derived from adjectives in *-e/o-* (IE *newo-* : *newā-*; Lat. *caecus* : *caecāre*; *pūblicus* : *pūblicāre*; κωφός : κωφᾶν; φοῖβος : φοιβᾶν) [224].

<sup>64</sup> It is uncertain whether the suffix *-x-* in this verb and the two next following is connected with the factitive suffix of [224].

The first person singular suffixes of the *hi*-conjugation, pres. *-hhi* and pret. *-hḫun*, come from IH *-xe* and correspond to the first singular preterit ending of other Anatolian languages (Luw. *ta-pár-ḫa* 'I ruled', Lyc. *prñnawaxa* 'I built it', *aga* 'I did it')<sup>65</sup> [231].

This IH *-xe* > IE *-a* is the first singular ending of the IE perfect tense.<sup>66</sup>

The first singular suffix of the midd. *i-ya-aḫ-ḫa-ri* 'I go', *za-aḫ-ḫi-ya-aḫ-ḫa-ri* 'I fight', *e-eš-ḫa-ḫa-ri* 'I sit', *ar-ḫa-ḫa-ri*<sup>67</sup> 'I stand' seems to represent *-hḫari* [284]: Lat. *-or* in *regor*, etc. IE *-or* < IH *-xor*.

When Hitt. *ḫ* initial or next a consonant represents *x*, that fact can often be learned from IE etymologies, as in the following cases.

*ḫa-an-za* (KUB 14.3.3.1) 'front, front side', dat. *ḫa-an-da*, *ḫa-an-di ḫa-an-ti* (-i) 'in front': *ἀντί* 'opposite', Lat. *ante* 'before'. IH *xents*, *xenty*.

*ḫar-zi ḫar-kán-zi* 'have': Lat. *arceō* 'hold, enclose; keep away', *arx* 'citadel', *ἀρκέω* 'ward off; be strong enough'.<sup>68</sup> IH *xerk-*.

*ḫar-ki-iš* 'white': *ἀργός*, *ἀργής* 'bright', *ἀργικέραυνος* 'with bright thunderbolt', Lat. *argentum* 'silver'. IH *xergys*.

gen. *ḫu-wa-an-da-aš*, pl. *ḫu-wa-an-te-eš*<sub>15</sub> 'wind': Skt. *vāti* 'blows', *ἄησι* 'blows', *ἄελλα* 'storm wind', *αἶνω* 'winnow', Lat. *ventus* 'wind', Cornish *awel* 'wind, storm'.<sup>69</sup> IH *xwé'ntos*.

*ḫu-i-iš-zi* 'lives', *ḫu-(u)-i-šu ḫu-(u)-e-šu* 'alive, raw': Skt. *vasati* 'dwells', Goth. *wisan* 'be, live', *ιαῖνω*, *ἄεσα*, *ἀέσκω* 'pass the night'.<sup>70</sup>

*pal-ḫi-iš*, *pal-ḫa-an*, pl. *pal-ḫa* 'broad', *pal-ḫa-a-aš-ti* 'breadth': Lat. *palam*, *plānus*, Lith. *plónas* 'thin'.<sup>71</sup> IH *polxwy-*, *poléx-*.

As an example of initial *ḫ* that is open to several interpretations, we may cite the word for 'hearth', acc. *ḫa-aš-ša-an*, gen. *ḫa-aš-ša-aš*, dat. *ḫa-aš-ši-i*, abl. *ḫa-aš-ša-az*: Lat. *āra* 'altar', Osc. loc. *aasai*.<sup>72</sup> Whether *ḫ* in this word represents IH *x* or *γ*, it is necessary to assume another laryngeal before *s* to account for the long vowel of Latin and Oscan. All requirements can be met by setting up IH *Ḫeʷs-*; but the Italic feminine requires a further suffix; probably it is collective *-h* [121b]. IH *Ḫeʷsoh(?)*.

## IH *γ*

**75.** IH *γ* generally remains in Hittite as a voiced velar spirant. It is always written single between vowels as well as initial or next a consonant. Although

<sup>65</sup> There seems to be no evidence for a second conjugation in Anatolian, outside of Hittite. The final nasal, common in Lycian preterites, is an enclitic attached to the verb form when there is a direct object. It has been identified with Hitt. *-an* 'him, her'. The Lycian preterit first singular varies between *-xa* and *-ga* as the present third singular varies between *-ti* and *-di*.

<sup>66</sup> E. H. Sturtevant and George Bechtel, *Lang.* 14.10-19 (1938).

<sup>67</sup> The writing of double *ḫ* by repeating the sign *-ḫa-*, instead of by *-aḫ-ḫa-*, was commented on by Pedersen, *Hitt. u. IE* 101 f. (1938). That IH *x* did not convert a contiguous *o* to *a* was pointed out by Sturtevant in *Lang.* 15.150 fn. 18 (1939); cf. *IHL* 42 (1942).

<sup>68</sup> *IHL* 40 (1942).

<sup>69</sup> *IHL* 41, 76 f. (1942); Sapir, *Lang.* 14.269-73 (1938).

<sup>70</sup> *IHL* 42.

<sup>71</sup> *IHL* 42.

<sup>72</sup> Pedersen, *Hitt. u. IE* 164 (1938).

-*ḫḫ*- (= *x*) rarely stands next a written *e* unless the latter stands for an original diphthong (*ne-iḫ-ḫi* 'I turn, lead' < IH *neyxe* : IE *neya*) or -*ḫḫ*- may be interpreted as coming from earlier -*x*- (*te-iḫ-ḫi* 'I place' < IH *d'e'xe* > IE *dhēka*; cf. *ἐθηκα*), Hittite -*ḫ*- (= *γ*) frequently stands next *e* (> *i*) in our texts.

*me-ḫur*, *me-(e)ḫu-na-aš*, *me-(e)ḫu-ni* 'time, point of time, occasion' : Skt. *māti* 'measures', *μητις* 'wisdom, skill', *μητιομαι*, *μητιόομαι* 'consider, plan', Lat. *mētiōr* 'measure', Goth. *mēl* 'time', OHG *māl*, OE *mæl* 'measure, point of time, meal time'.<sup>73</sup>

IH *meγ*- 'measure'.

*še-e-ḫur*, *ši-e-ḫu-na-aš* *še-e-ḫu-na-aš* 'urination, urine' : Lat. *sēmen* 'seed', *sēvī* 'I sowed', *serō* 'sow', *satus* 'sown'.<sup>74</sup>

IH *seγwr*.

*ú-e-iḫ-zi*, *ú-e-ḫu-un*, infin. gen. *ú-e-ḫa-an-na-aš* : *wa-aḫ-zi*, *wa-ḫa-an-zi* *wa-ḫa-an-du*, part. *wa-ḫa-an-za*, infin. *wa-ḫa-an-na*; midd. *ú-e-iḫ-ta-ri* *ú-e-ḫa-at-ta* (*ri*), *ú-e-ḫa-an-da* (*ri*) 'turn, fall'. Cf. Skt. *vayati* 'weave', *ūtas* 'woven', *-vāyas* 'weaving' (RV), infin. *otum* (RV), *otave* (RV), perf. 3 pl. *ūwur* (RV).<sup>75</sup>

acc. pl. *sīe-ḫu-ra-ti-uš* (KUB 12.58.2.19 = Ritual of Tunnawi 2.44) 'woolen ear-stoppers', *e-ḫu-ra-da* (*a*)-*iz-zi* (KUB 7.53.1.16, 18) 'stops (ears with wool)'. The etymology cannot be determined until we know whether *e-ḫu-ra* means 'ear' or 'wool' or 'stopped'.<sup>76</sup> At any rate we have intervocalic *ḫ* following *e*.

*ir-ḫa* (*a*)-*aš*, *ar-ḫa-an* 'boundary, territory' : Lat. *ōra* 'border', Skt. *ārāt* 'from afar'.

IH *Eeγr*-.<sup>77</sup>

*e-eš-ḫar* *iš-ḫar*, gen. *e-eš* (*ḫa*)-*na-aš* *iš-ḫa-na-aš* : *ḫap* *ēāp*, Skt. *asṛk*, gen. *asnas*, Lat. *aser*, Lett. *asins* 'blood'.

IH *Eéγsr*-.<sup>78</sup>

*ḫé-kur* *ḫé-gur* 'summit, peak, stronghold' : Skt. *giris*, OCS *gora* 'mountain', *δεῖπας* 'ridge'; Skt. *agram* 'point, tip'.

IH *γégr*, (*γ*)*gwér*-.<sup>80</sup>

*ḫi-in-ik-zi* *ḫi-ik-zi* *ḫi-in-ga-zi*, *ḫi-in-kán-zi* *ḫi-in-ga-an-zi*, pret. *ḫi-en-ik-ta* *ḫi-in-ik-ta* *ḫi-in-kat-ta* 'fix, fasten, assign, devote', *ḫi-in-kán* *ḫé-en-kán* *ḫi-in-ga-an*, gen. *ḫi-in-ga-na-aš* 'fate, death, pestilence' : OIr. *ēcen* 'necessity', Welsh *anghen* *angen* 'necessity, fate, destiny'.<sup>81</sup>

IH *γénk*-, *γnkén*-.<sup>81</sup>

*ḫu* (*u*)-*uk-zi* *ḫu* (*e*)-*ik-zi* *ḫu* (*u*)-*e-ik-zi*, 1 sg. *ḫu-uk-mi*, 3 pl. *ḫu* (*u*)-*kán-zi*, pret. *ḫu-e-ik-ta*, pl. *ḫu-u-ga-u-en*, *ḫu-u* (*uk*)-*ki-eš-kán-zi* 'set free from witchcraft, charm, cure', *ḫu-u-i-ga-tar*, gen. *ḫu-u-ga-na-aš*, acc. *ḫu-uk-ma-in*, dat. *ḫu* (*u*)-*uk-ma-i* 'charm to free one from witchcraft' : *ᾄγνυμι* 'break', *ἀγή* 'breakage, breach', *κυματωγή* 'beach', *ἰωγή* 'shelter (against the wind)', *ἐπωγαί* 'shelters for ships, roadsteads'.<sup>82</sup>

IH *γweg*-.<sup>82</sup>

*ḫu-u-i-tar* *ḫu-i-ta-ar*, gen. *ḫu-it-na-aš*, inst. *ḫu* (*u*)-*it-ni-it* 'fauna, the animals' : IE *weid*- 'see, know'. That this root had an initial laryngeal is shown by

<sup>73</sup> IHL 47.

<sup>74</sup> Sturtevant, Lang. 12.182-5 (1936), IHL 47 (1942).

<sup>75</sup> IHL 47 f., Sturtevant, Lang. 20.209 (1944).

<sup>76</sup> Albert Cuny, RHA 6.92 (1942); IHL 47 (1942).

<sup>77</sup> The lengthened vowels of Sanskrit and Latin require that IH *γ* shall be placed before *s*. It appears that IH -*γr*- and -*γs*- were regularly transposed in Hittite; see IHL 65. (In 66f, l.1, read: *γz* and *sh*.)

<sup>78</sup> On the change of IH -*γs*- to Hitt. -*šh*-, see fn. 77. See IHL 48 f.

<sup>80</sup> IHL 49.

<sup>81</sup> Pedersen, Hitt. u. IE 183 f. The vocalism of the Hittite word proves that the initial is *γ*.

<sup>82</sup> IHL 50.

the long augment of  $\eta\iota\delta\eta$  'I knew' from  $*\eta\phi\epsilon\iota\delta\epsilon\alpha$  and by  $\nu\eta\iota\varsigma$  'not knowing'. The smooth breathing of  $\epsilon\iota\delta\omicron\nu$ ,  $\omicron\iota\delta\alpha$ , etc., shows that the initial laryngeal was voiced.<sup>83</sup>

IH  $\gamma w y d$ .

$i\check{s}\text{-}h\alpha\text{-}a\text{-}i$ , pret. 1 sg.  $i\check{s}\text{-}h\iota\text{-}i\check{h}\text{-}h\upsilon\text{-}u\check{n}$ ,  $i\check{s}\text{-}h\iota\text{-}y\alpha\text{-}a\check{t}\text{-}t\epsilon\text{-}e\text{-}n\iota$ ,  $i\check{s}\text{-}h\iota\text{-}(y\alpha\text{-})a\check{n}\text{-}z\iota$ , pret.  $i\check{s}\text{-}h\iota\text{-}y\alpha\text{-}n\upsilon\text{-}u\check{n}$ ,  $i\check{s}\text{-}h\iota\text{-}y\alpha\text{-}a\check{t}$ ,  $i\check{s}\text{-}h\iota\text{-}i\text{-}e\text{-}i\check{r}$ , part.  $i\check{s}\text{-}h\iota\text{-}(y\alpha\text{-})a\check{n}\text{-}z\alpha$  'bind, make a treaty with',  $i\check{s}\text{-}h\iota\text{-}y\alpha\text{-}a\check{l}$  'bond',  $i\check{s}\text{-}h\iota\text{-}\acute{u}\text{-}u\check{l}$  'obligation, contract, treaty',  $i\text{-}y\alpha\text{-}a\check{s}\text{-}h\alpha\text{-}a\check{t}\text{-}t\alpha$  (KBo. 5.6.4.3.) 'you are bound to, you are sympathetic with'<sup>84</sup>: Av.  $y\acute{a}st\alpha\text{-}$ ,  $\zeta\omega\sigma\tau\acute{o}\varsigma$  'girt',  $\zeta\acute{\omega}\nu\nu\mu\iota$ ,  $\zeta\omega\sigma\tau\acute{\eta}\rho$ ,  $\zeta\acute{\omega}\nu\eta$ , Lith.  $j\acute{u}osi\upsilon$   $j\acute{u}osti$  'gird',  $j\acute{u}ostas$  'girt'. Hitt.  $iyash\text{-}$ : IE  $y\acute{o}z\text{-}$ .

IH  $\gamma y o \gamma s$ .

Hitt.  $i\check{s}\text{-}h\iota\text{-}y\alpha\text{-}a\check{n}\text{-}z\iota$  (note metathesis of  $\gamma s$  [fn. 77]).

IH  $\gamma y \gamma s y e / o\text{-}$ .

The IE prefixes  $\bar{a}\text{-}$  (particularly Sanskrit  $\bar{a}\text{-}$  and Italic  $\bar{a}\text{-}$ ) and also  $\check{e}\text{-}$  and  $\check{o}\text{-}$  have long been familiar; I have discussed them and suggested a connection with Hitt.  $h\alpha\text{-}$  from IH  $\gamma e / o$ <sup>86</sup>. The differences in vocalism between IE  $\bar{a}\text{-}$  and  $\check{e} / \check{o}\text{-}$  are ultimately due to the presence or absence of laryngeals at the beginning of the following stems. We are here concerned with the Hittite prefix [215].

<sup>G15</sup> $h\alpha\text{-}a\check{s}\text{-}d\upsilon\text{-}e\text{-}i\check{r}$  'branches' from IH  $\gamma o\text{-}s d\text{-}w\acute{e}r$  'a perching together':  $\delta\zeta\omicron s$ , Goth.  $asts$  'branch, twig' from IE  $o\text{-}s d\text{-}o s$  'perch'.

$h\alpha\text{-}a\check{n}\text{-}n\alpha\text{-}a\text{-}i$ , pl.  $h\alpha\text{-}a\check{n}\text{-}n\alpha\text{-}a\check{n}\text{-}z\iota$ , midd.  $h\alpha\text{-}a\check{n}\text{-}n\alpha\text{-}r\iota$  'distribute; litigate, decide a lawsuit' from IH  $\gamma o\text{-}n e' y$ <sup>87</sup>.

In some circumstances IH  $\gamma$  is lost in Hittite.

Luw.  $h\iota\text{-}i\check{s}\text{-}h\iota\text{-}y\alpha\text{-}a\check{n}\text{-}t\iota$  (KUB 9.31.2.24) 'they bind' beside Hitt.  $i\check{s}\text{-}h\iota\text{-}y\alpha\text{-}a\check{n}\text{-}z\iota$  shows that IH  $\gamma y \gamma s y \acute{e} n t y$  becomes Hitt.  $i\check{s}\text{-}h\iota\text{-}y\alpha\text{-}a\check{n}\text{-}z\iota$ ; in Luwian, medial  $-\gamma s$  became  $-sh\text{-}$ , as in Hittite, but there is no evidence for dissimilative loss.

$a\text{-}a\check{s}\text{-}\acute{s}u\text{-}u\check{s}$ , neut.  $(a\text{-})a\check{s}\text{-}\acute{s}u\text{-}(u)$  'good, kind, dear':  $\acute{\eta}\acute{\upsilon}\varsigma$ , neut.  $\acute{\eta}\acute{\upsilon}$  'good, brave, noble', Skt.  $su\text{-}$ ,  $\acute{e}v\text{-}$  'well-',  $\acute{v}$ - in  $\acute{v}\gamma\upsilon\acute{\eta}\varsigma$  'healthy'. The long initial of  $\acute{\eta}\acute{\upsilon}\varsigma$  and the smooth breathing require us to assume IH  $'\acute{e}y s w s$ , but Hitt.  $a\text{-}a\check{s}\text{-}\acute{s}u\text{-}u\check{s}$  must come from  $'\acute{v}\gamma s \acute{e} w s$ ;  $\gamma$  was lost between  $\acute{v}$  and  $s$ , resulting in  $-ss$ .

$(i\text{-})e\text{-}\acute{e}\check{s}\text{-}n\alpha\text{-}a\check{s}$ , gen. sg. of  $e\text{-}\acute{e}\check{s}\text{-}h\alpha r$  'blood', must represent IH  $E\acute{v}\gamma s n\acute{o}\varsigma$ ; probably as in  $a\text{-}a\check{s}\text{-}\acute{s}u\text{-}u\check{s}$ , IH  $'\acute{v}\gamma s\text{-}$  became Hitt.  $ass\text{-}$ , and then the vowel of the nominative-accusative was introduced by analogy.

$p\alpha\text{-}a\check{s}\text{-}z\iota$ ,  $p\alpha\text{-}a\text{-}\acute{s}i$ , pret.  $p\alpha\text{-}a\check{s}\text{-}t\alpha$  'drink, swallow': Skt.  $p\acute{a}nt\iota$ . Skt.  $p\acute{a}t\bar{r}am$  'cup',  $\pi\acute{\alpha}\theta\iota$  'drink!'  $\pi\acute{\omega}\mu\alpha$  'drink, draught', Lat.  $p\acute{o}t\omicron r$ ,  $p\acute{o}t\acute{a}r\epsilon$ ,  $p\acute{o}c\upsilon l\upsilon m$  require an IH laryngeal; the  $-b\text{-}$  of Skt.  $p\acute{ib}at\iota$  'drinks', Lat.  $b\acute{ib}it$ , OIr.  $ib\text{-}$  'drinks' must be due to  $-\gamma\text{-}$  (IH  $p y\text{-}b y\text{-}\acute{e} t y > IE\text{ } p\acute{ib}\acute{e}t\iota$ ). Here again we may assume that IH  $p\acute{v}\gamma s \acute{e} n t y > Hitt. p\alpha\text{-}a\check{s}\text{-}\acute{s}a\text{-}a\check{n}\text{-}z\iota$ .

## IH $h$

**76.** The laryngeal theory, as originally propounded by Kuryłowicz, accounted for full grade  $\check{a}$  in Proto-IE by contact with a laryngeal, which he wrote  $\text{?}_2$ . This

<sup>83</sup> IHL 50 f.

<sup>84</sup> IHL 51.

<sup>86</sup> Sturtevant, Lang. 15.145-52 (1939), IHL 52 (1942); cf. Émile Boisacq, Dictionnaire Étymologique s.v.  $\acute{o}$ .

<sup>87</sup> Sturtevant, Lang. 15.152 (1939), IHL 52 (1942). Various etymologies have been presented for this word, and the above etymology has been opposed by a number of scholars, but their arguments are not convincing. See Hendriksen, Laryng. 25,45 (1941); Szemerényi, Anal. Orient. 1.13 (1942); Pedersen, Lyk. u. Hitt. 26 f. (1945).

is the phoneme which we have treated as IH *x*; it yielded Hitt. *ḫ*(*ḥ*), usually written in full when that was possible, otherwise *ḫ*. It was presently observed, however, that in a number of cases full grade *a* in the Indo-European languages corresponds to Hitt. *a* unaccompanied by *ḫ*(*ḥ*). Kuryłowicz therefore added to his three laryngeal consonants a fourth (*ǵ*),<sup>89</sup> which induced the change of original *e* to *a* and which is not recorded in our Hittite texts. Sapir adopted a similar view,<sup>90</sup> largely under the influence of his studies in certain American Indian languages, and posited four laryngeal consonants: a glottal stop ' , a glottal stop of velar color ; a velar or postvelar voiceless spirant *x*, and a similar voiced spirant *γ*. I adopted this terminology in IHL, but I now prefer to write *h* rather than : for the *a*-colored laryngeal that was regularly lost in Hittite.

IH *h*, then, is lost in Hittite and the other Anatolian languages, as in Indo-European, but in both it has induced a change of *e* to *a*. Since we do not know whether *h* was retained in Proto-IH, we cannot be sure whether that language had separate phonemes *a* and *ā*. It is simpler to assume the retention of *h* in Indo-Hittite and to write full grade *e* and *ē* in reconstructed forms.

The most important material for positing IH *h* is the following.

*ma-ak-la-an-da-an*, *ma-ak-la-an-te-eš* 'thin, lean', *ma-ak-la-an-na-az* 'from thinness', *ma-ak-ki-e-eš-zi* 'grows great', pret. *ma-ak-ki-eš-ta*, part. *ma-ak-ki-iš-ša-an* : *μακρός* 'long', *μακεδνός* 'tall', *μήκος*, Dor. *mākos* 'length', Lat. *macer* 'thin, lean'. IH *mehk-* : *məhk-*.<sup>91</sup>

*me-ma-(a)i me-im-ma-i* 'says', *me-ma-aḫ-ḫi*, *me-(e)ma-at-ti*, *me-(im-)ma-an-zi*, pret. *me-(im-)ma-aš*, *me-mi-(e)ir* : *μῆμνημαι* 'remember', Aeol. *ἐμνάσθην*, Dor. *μῆμνασο*.<sup>92</sup> IH *memneh-*.

*da-a-i* 'takes', *da-aḫ-ḫi*, *da-at-ti*, *tum-me-ni*, *da-at-te-(e-ni)*, *da-a-an-zi*, pret. *da-a-aš*, *da-a-ir* : Lat. *dās* 'you give', imper. *dā*, pl. *damus*, Arm. *tam* 'I give'. Lat. *dōnum*, *δίδωμι*, etc., contain *o*-grade of the root.<sup>93</sup> IH *deh-*.

*ta-(a)i-(e)iz-zi* *da-(a)i-(e)iz-zi* *da-(a)i-ya-(az-zi)* 'steals', *ta-ya-az-zi-il*, gen. *ta-ya-zi-la-aš* 'theft' : Skt. (*s*)*tāyus* 'thief', Dor. *τάραιμαι* 'I lack, am bereft of', OCS *tajq tajiti* 'hide, conceal'. IH *tehy-*.

*ti-it-ta-mi* (KUB 1.1b.2), pret. *ti-it-ta-nu-un* (KBo. 4.8.2.6), causat. *ti-it-ta-nu-(uz-)zi*, *ti-it-(ta-)nu-ut*, durat. *ti-it-ta-nu-uš-kán-zi*, pret. *ti-it-nu-uš-ki-it* 'cause to stand, place', *ti-ya-(az-)zi ti-i-(e)iz-zi*, *ti-(i-ya-)an-zi*, pret. *ti-(i-)ya-at*, durat. *ti-iš-ki-iz-zi*, *ti-iš-kán-zi* 'take one's stand, approach' : *ῥστημι* 'cause to stand', *ῥσταμαι*, aor. *ῥστην* 'stand', Lat. *stāre* 'stand', OCS *stajq statī* 'take one's stand', *stojq stojati* 'stand'. Evidence for *s*-movable is presented by Skt. *tiṣṭhati* beside Av. *hištaiti* 'stands' and Lat. *sistit* 'sets'.<sup>94</sup> IE (*s*)*tā-* : (*s*)*tə-* <

IH (*s*)*teh-* : (*s*)*təh-*

<sup>89</sup> EI 1.75 f., 254 f. (1935).

<sup>90</sup> Lang. 14.248-74 (1938), 15.181 fn. 2 (1939).

<sup>91</sup> The Hittite words may all of them contain reduced grade vowels, which could result from IH *-ə-* as well as from *-əh-*. It is the vowel of Dor. *mākos* that makes it necessary to assume IE *ā* and IH *-eh-*.

<sup>92</sup> IHL 43 (1942); Benveniste, BSL 33.140 (1932); Pedersen, Hitt. u. IE 116 (1938); G. Bonfante, Lang. 17.205-7 (1941); Sturtevant, Lang. 16.275 (1940).

<sup>93</sup> Sturtevant, Lang. 16.276 and fn. 9 (1940).

<sup>94</sup> IHL 44.



*i-ya-at-ta(-ri)*, *i-ya-an-ta(-ri)* 'go': Skt. *yāti* 'goes', *yānam* 'a walking, a going, a vehicle', Lat. *iānuā* 'door', OIr. *āth* 'ford', Lith. *jóju jótī* 'ride'. If we connect this word with IE *ei* 'go', we must reconstruct IH *'yeh-* beside *'ey-*.

If we interpret Hitt. *a-a-* as representing *aya* [39], then: *a-a-ri* 'is hot', part. *a-a-an-za*, *a-a-an*, NINDA *a-a-an-ḪIA* 'hot loaves' contains the base of Av. *ayare*, gen. *ayān* 'day', Goth. *air*, OIcel. *ar* 'early', *aīðω* 'burn', *aīðos* 'heat, fire', Skt. *edhas* 'firewood'. IH *héy-*.

*a-ap-pa* 'afterwards, again; back': Skt. *āpa* 'away, forth; back', *ἀπό* 'away, from; after, back', Lat. *ab* 'away, from; after'. The meaning of the Hittite word appears in *āψ* 'backwards, back again; in return', Lat. *absque* 'without, contrary to', *abrogō* 'repeal'.<sup>95</sup> IH *hép-*.

*a-uš-zi* 'sees', 1 sg. *u-uḫ-ḫi*, 2 sg. *a-ut-ti*, 1 pl. *a-ú-(um-)me-ni*, 2 pl. *(a-)uš-te-ni a-ut-te-ni*, 3 pl. *ú-wa-an-zi*, pret. *a-(ú-)uš-ta*, 1 sg. *u-uḫ-ḫu-un*, 1 pl. *a-ú-me-en*, 3 pl. *a-ú-(e-)ir* 'see': *aīws áws ēws*, Lat. *aurōra*, Skt. *uśās* 'dawn'; Hitt. *uš-ki-iz-zi*, 3 pl. *uš-kán-zi* 'be seeing': Skt. *ucchati* 'shines'. The length of Dor. *ā*, guaranteed by Att. *ε*, requires a laryngeal after the initial vowel and there was certainly an *h* either before the vowel or after it; but the possibilities are various.<sup>96</sup>

*a-wa-an*, an adverb used with *ar-ḫa* 'away', *kat-ta* 'down, together', and *ša-ra-a* 'up': Skt. *ava* 'off; down, down from'; Hitt. *u-* 'hither': Lat. *au-* 'away'.<sup>97</sup> IH *hew-*.

*pa-a-i* 'gives', 2 sg. *pa-it-ti*, 1 sg. *pí-iḫ-ḫi*, pret. *pa-(a-)iš*, 1 sg. *pí-(e-)iḫ-ḫu-un*, imper. *pa-(a-)i* must contain the preverb IH *b'e-*: Toch. B *ai-* 'give', *aīsa* 'fate', Osc. *aeteis* (gen.) 'partis'. The verb is probably IH *b'e-he'y* [238b].<sup>98</sup>

The second singular ending *-tti*, pret. *-tta*, of the *ḫi*-conjugation corresponds to the ending of the second singular perfect in Greek and Sanskrit (*οἶσθα*, Skt. *vettha* 'you know'). IH *h* after the *t* accounts both for the vocalism and for the aspiration in Greek and Sanskrit [76]. Examples of the endings in Hittite follow (the change of final *-a* to *-i* in the present is part of the spread of final *-i* to all Hittite present forms of the active voice [262]): *ša-(a-)ak-ti* 'you know', *ša-ak-ta* 'you knew', *da-at-ti* 'you take', *pa-it-ti* 'you give', *pa-iš-ta* 'you gave' (cf. Lat. *dedisti*), *ša-ra-at-ti* 'you separate', *ša-ra-at-ta* 'you separated'.

76a. Since the appearance in 1889 of Johannes Schmidt's *Die Pluralbildungen der indogermanischen Neutra*, it has been accepted doctrine that the ending *-ā/ə* of the neuter plural is to be identified with the similar ending of the feminine singular. Since Hittite has an ending *a* in the neuter plural, and since the Greek practice of construing singular verbs with neuter plural subjects reappears in Hittite, it has seemed to many scholars necessary to assume that Hittite once had a feminine singular in *-a*. The more probable conclusion is that the pre-Hittite collective singulars were of neuter gender.<sup>99</sup> For proof of long quantity

<sup>95</sup> IHL 45 (1942).

<sup>96</sup> IHL 45 f.

<sup>97</sup> IHL 46.

<sup>98</sup> IHL 46.

<sup>99</sup> Sturtevant, *Lang.* 14.75, 245 f. (1938), CP 36.258-64 (1941), IHL 44 (1942), and especially *Lang.* 24.259-61 (1948).



of vowels in neuter plural endings, one must cite Vedic forms like *yugā* 'yokes' (cf. Skt. *yugāni*), Osc. *prūstū* 'posita' and *comono* 'comitia', Goth. *juga*, OCS *iga* 'yokes'; and proof of IE reduced grade *-ə* is furnished by Skt. neut. pl. *bhar-anti* = *φέροντα* and *janānsi* 'races' = *γένεα*.

Since Hittite never shows *h* beside a final vowel of a neuter plural, we may list as evidence for IH *h* such neuter plurals as: *pār-na* 'buildings, house, palace' (cf. Lat. *aedes* 'house'), *pī-it-ta* 'payments', *a-ra-aḥ-zé-na* 'finitima, externa', *dan-na-at-ta* 'vacua', *me-ik-ki* 'multa', *i-da-a-lu* 'mala'.

### IH '

77. Just as etymologies showing Hitt. *a* = IE *ā*, but without a contiguous *h* (*h*) in Hittite, made it necessary to set up an additional laryngeal, which we are designating *h* [76], so etymologies showing Hitt. *e* = IE *ē* before a consonant, but without a following *h* in Hittite, and other etymologies showing Hittite *e* = IE *e*, but without initial *h* in Hittite, compel us to infer an additional IH laryngeal, which we tentatively consider a glottal stop and write '. This phoneme is never written as such in Hittite or in the Indo-European languages.

IH ' has no effect upon vowel quality either in Hittite or in the Indo-European languages. It lengthens a preceding vowel upon its loss before a consonant in pre-IE. If it stood immediately after a voiceless stop it combined with this to form a voiceless aspirate in Proto-IE; this effect it shared with IH *x* and *h*<sup>100</sup> [74, 76].

We never have record of IH ' in Hittite; its former presence is inferred in the following words.

*e-ku-(uz)-zi* 'he drinks, causes to drink', 2 sg. *e-ku-uš-ši*, 1 pl. *a-ku-e-ni*, 2 pl. *e-ku-ut-te-ni*, 3 pl. *a-ku-(wa)-an-zi*, pret. 1 sg. *e-ku-un*, 3 pl. *e-ku-(i-e)-ir*, durat. *ak-ku-uš-ki-iz-zi*, *ak-ku-uš-kán-zi*, pret. *ak-ku-uš-ki-nu-un*, *ak-ku-uš-ki-it*, *ak-ku-uš-kir* : Toch. *yoktsi* 'to drink', OIcel. *æger* 'sea, god of the sea', Goth. *ahva*, Lat. *aqua* 'water'. The OIcel. word requires IE full grade *ēkw-*, and so the initial *a-* of Gothic and Latin must represent IE *ə*. IH 'e'kw-, 'ə'kw-<sup>101</sup>

*e-ip-zi* 'he takes, marries, begins', *e-ip-mi*, *ip-pu-u-e-ni*, *e-ip-te-(e)-ni*, *ap-pa-(a)-an-zi*, pret. *e-ip-pu-(u)-un*, *e-ip-ta*, *e-ip-pu-en*, *e-ip-tin*, *e-ip-pir*, durat. *ap-pí-iš-ki-iz-zi*, pret. *ap-pí-iš-ki-it* *ap-pí-eš-ki-it* : Skt. *āpnoti* 'obtains', desid. *īpsati* (from IH 'i-'pse/o-), OLat. *coepe* 'I began', *apiscor* 'I gain, attain'.

IE *ēp-əp-* < IH 'e'p- 'ə'p-.

*e-eš-zi*, 3 pl. *a-ša-an-zi* 'set, sit, beset, do', midd. *e-ša-(ri)*, 1 sg. *e-eš-ḫa-ḫa-ri*, 3 pl. *e-ša-an-da-(ri)* *a-ša-an-da* (KUB 10.17.2.9) 'sit' : Skt. *āste*, *ἵσται* 'sits'.

IE *ēs-* < IH 'e's- 'ə's-.

*ḫu-wa-an-te-eš* 'winds', acc. *ḫu-u-wa-an-du-uš* : Skt. *vāti* 'blows', *ἄησι* 'blows' [74].

IH *xwé'ty* *xwé'ty*.

*ḫu-(e)-ik-zi* *ḫu-u-uk-zi*, *ḫu-(u)-uk-mi*, *ḫu-(u)-kán-zi* 'set free from witchcraft, charm, cure', durat. *ḫu-(uk)-ki-iš-ki-(iz)-zi*, *ḫu-(uk)-ki-iš-kán-zi* : *ωγή* 'shelter' [75].

IH *ḡwé'g-*<sup>102</sup>

<sup>100</sup> IHL 34, 53-56, 83-85.

<sup>101</sup> IHL 53; Pokorny, Idg. et. Wörterb. 23 (1949).

<sup>102</sup> IHL 50, 54.

*na-a-i*, 1 sg. *ne-iḫ-ḫi*, 2 sg. *na-it-ti*, pret. *na-a-iš*, 1 sg. *ne-iḫ-ḫu-un* 'lead, send, turn', 3 pl. *ne-ya-an-zi*, pret. 3 pl. *ne-i-e-ir*, midd. *ne-e-a-ri ne-ya-ri* : Skt. *nayati* 'leads', perf. *nināya* [239a], aor. *anaiṣīt*, part. *nītas*. IH *ne'y*.<sup>103</sup>

*da-a-i*, 1 sg. *te-iḫ-ḫi*, 2 sg. *da-it-ti*, pret. *da-(a-)iš*, 1 sg. *te-iḫ-ḫu-un* 'place' : IE *dhē- dhə-* 'place'. IH *d'e- d'ə-*.<sup>104</sup>

*e-eš-zi*, pl. *a-ša-an-zi* 'is, are' : IE *esti, senti*. IH *'es- 'əs-*.<sup>105</sup>

*e-(iz-)za-(az-)zi*, 1 sg. *e-il-mi*, 1 pl. *a-tu-e-ni*, 3 pl. *a-da-an-zi*, pret. *e-iz-ta*, 1 sg. *e-du-un*, 3 pl. *e-te-ir*, imper. *e-it*, infin. *a-da-an-na* 'eat' : Skt. *atti* 'eats', *ἔδομαι*, Lat. *edō*. *νήστος* 'not eating' comes from IE *h₁-tstis* < IH *An-'tsteys*.<sup>106</sup>

77a. I have shown, IHL 62-4, that IH *-e'xe* yielded Hitt. *-e-iḫ-ḫa* and IE *-ēka*, while IH *-ehxe* or *-ohxe* yielded Hitt. *-a-aḫ-ḫa* and IE *-āka, -ōka*. Hence Hitt. *te-iḫ-ḫi* (< from Anatolian *de'xa*) beside *ḫḫka*, Hitt. *da-aḫ-ḫi* (< Anatolian *dohxa*) beside *ḫḫka* [234].

### Hittite Stops

78. Hittite has three orders of stops: velars, dentals, and labials. There is no trace of the Indo-European distinction between velars and palatals; Hitt. *ki-it-ta-(ri)* 'lies' corresponds to Skt. *ṣete*, *κεῖται* (IE *kei-*); Hitt. *lu-uk-kiḫ-ta* 'day dawns' corresponds to Skt. *rocate*, *λεῖκος*. Hittite does, however, distinguish between IE velars and labiovelars in some words. Besides the interrogative-indefinite-relative stem *kwi/o-* of Proto-IE, Hittite shows *ku-iš ku-in ku-it* 'who, whom, what', *ku-wa-at* 'why', etc. In other words we see the same variation between *kw* before vowels and *ku* before consonants that we have in Skt. *kutra* 'where' and Lat. *alicubi* 'elsewhere' from the *kwi/o-* stem, and in *κύκλος* beside OE *hweol* 'wheel'. An excellent example is *ku-en-zi* 'he strikes' : *ku-na-an-zi* 'they strike' corresponding to Skt. *hānti* < IE *ghwénti* : *ghnānti* < IE *ghwnénti*.<sup>107</sup> There are many instances in Hittite, as in the IE languages, of the omission of the labial element from original *ku/w*, etc. Hittite makes use of a suffixed *-ki* or *-ka* after indefinite pronouns or adverbs, e.g. *ku-iš-ki* 'quisquam, aliquis', *ku-in-ki*, *ku-it-ki*, dat. *ku-e-da-ni-ik-ki*, gen. *ku-(e)-el-qa*, *ku-el-qa*, *ku-(e)-el-ka*, abl. *ku-e-iz-ka*, *ku-e-iz-qa*. Hitt. *ku-iš-ki* reminds us of Lat. *quisque*, and so one may be inclined to call this loss of the labial element of a repeated stem dissimilation, but we haven't enough material to be quite sure of that. We have from other Anatolian languages, *-ke* = Lat. *-que* in Lycian and Lydian, and in Hittite there is *ni-ik-ku* (KUB 24.8.2.16, 17, 18) = Lat. *neque*.<sup>108</sup>

The easiest way of reconciling these and other variants for the IE labiovelars is to suppose that in Proto-IH the phoneme *w/u* frequently followed a stop, *k*, *g*, or *g'*. In Hittite these groups of phonemes remained without essential change, but in Proto-IE they gave rise to the phonemes *kw*, *gw*, and *ghw* alongside the syllables *ku*, *gu*, and *ghu*.

<sup>103</sup> IHL 54 f., 71.

<sup>104</sup> [239c]; IHL 55.

<sup>105</sup> IHL 55.

<sup>106</sup> IHL 55, 57.

<sup>107</sup> Antoine Meillet once remarked that this one correspondence between Hittite and Sanskrit was enough to establish their relationship.

<sup>108</sup> Adelaide Hahn, Lang. 12.110 fn. 14 (1936); Friedrich, JCS 1.303 (1947).

It follows that we must look for Proto-IE *k* and *k̂*, *g* and *ĝ*, *gh* and *ĝh* beside Hittite *k* and *g*, and after any of these phonemes there may stand a *w/u* in Hittite and in the IE languages. The circumstances under which *w/u* is lost or retained in Hittite and in Proto-IE are only partially known. We shall cite here the most clearly understood facts under the several Proto-IH phonemes.

IH *k* = IE *k*, *k̂*, or the velar part of *kw*

79. IH *k* remains in Hittite, where it is usually written double between vowels (*kk*, *gg*, *qq*), and sometimes a silent vowel is introduced to make the double writing possible.

*e-ku-(uz-)zi*, *a-ku-(wa-)an-zi* 'drink, give to drink', durat. *ak-ku-uš-ki-iz-zi*, *ak-ku-uš-kán-zi* : Toch. *yoktsi* 'to drink', OIcel. *æger* 'sea, god of the sea' [60]. The consistent use of single *k* between vowels in the primary verb is difficult, but note *-kk-* in the durative. IE *ēkw-*, *əkw-* < IH *'e'kw-*, *'ə'kw-*.

*hi-(in-)ik-zi* *hi-in-ga-zi*, *hi-in-kán-zi* 'fix, determine', *hi-in-kán* *hē-en-kán* *hi-in-ga-an* 'fate, death, pestilence' : ἀνάγκη, OIr. *écen*, Welsh *angen* 'need, necessity'. IH *γenk-*.

*iš-kal-la-i*, *iš-gal-la-i*, *iš-kal-la-i-iz-zi* 'maims, cuts, breaks', pret. *iš-kal-la-aḫ-hu-un* (KUB 13.35.4.31), midd. *iš-kal-la-(a-)ri*, durat. *iš-kal-li-iš-ki-iz-zi* : σκάλλω 'hoe', Goth. *skiljan* 'separate, cut', Lith. *skeliù skėlti* 'split'.

*ga-ne-eš-zi* *ga-ni-eš-zi*, pret. *ka-ni-eš-ta* *ka-ni-iš-ta*, part. *ka-ni-eš-ša-an-za* 'find; love' : Skt. aor. *akāniṣam*, perf. *cākana* 'enjoy, be pleased', *canas* 'gladness', Av. *čanah-*, *čīnah-*, *čīnman-* 'desire'. IH *knes-*.

*ga-an-ki* *ga-an-ga-i* 'hangs' (transitive), 1 sg. *ga-an-ga-aḫ-ḫi* *kán-ga-aḫ-ḫi* : Goth. *hāhan* 'hang' (transitive), OHG *hāhan*, OE *hōn* 'hang'. Cf. Skt. *gaṅkati* 'wavers, doubts', Lat. *cunctor* 'delay'. IH *konke-*.

*ka-a-aš*, acc. *ku-u-un*, gen. *ki-e-el* 'this' : κείνος, *ce-do* 'give here', *-ce* (appended to demonstratives), *citrā* 'on this side', Lith. *šis*, OCS *se* 'this'. IH *ke/y-*.

*kat-ta*, *kat-ta-an* 'down, with', *kat-te-ir-ra-aš* 'lower' : κατά 'down, against', Lat. *co(m)-*, *cum* 'with', *contrā* 'against'. IH *ko(m)t-*.

*gi-ir* ŠA-ir,<sup>109</sup> gen. *kar-ta-aš* (VBoT 58.1.3), *kar-di-(ya-)aš*, dat. *kar-di*, inst. *kar-di-it* (KUB 30.10.1.24, 27) 'heart' : κῆρ, καρδιά, Lat. *cor cordis* 'heart'.

IH *kērd*, *kērd-*.

*ki-it-ta(-ri)*, *ki-(ya-)an-ta(-ri)*, pret. *ki-it-ta-at*, imper. *ki-it-ta-ru* 'lie, be placed' : κείται, κίνται, έκειτο, έκειντο, Skt. *ḡete* 'lie'. IH *keyto-*.

*ku-ir-zi* 'cuts', pl. *ku-ra-an-zi*, pret. *ku-e-ir-ta*, imper. *ku-ra-an-du*, part. *ku-ra-an-ta-an*, *ku-ra-an*; *ku-uk-kur-aš-kán-zi*, *ku-uk-ku-ri-eš-ki-ir* 'cut off, mutilate'; <sup>KUŠ</sup>*gur-ša-aš*, *kur-ša-an*, dat. *kur-ši* 'hide, shield' : Lat. *curtus* 'abbreviated'. Without the labial element we have *kar-aš-zi* *kar-ša-an-zi*, pret. *kar-aš-ta*, *kar-šu-un*, *kar-še-ir* 'cut off' : ἀκερσεκόμης 'long-haired', Lat. *corium* 'hide', *carō* 'flesh', κείρω 'cut'. There is an extension of the root in *-(e)u-* in several Hittite and IE words, and the extensive loss of the labial element, especially in IE, may have been caused by dissimilation in these words. Hitt. neut. *ku-(u)ru-(u)ur* 'hostility', gen. *ku-(u)ru-ra-aš* 'hostile', *ku-(u)ri-ya-aḫ-zi* 'makes

<sup>109</sup> Sommer, Bil. 96 (1938).

hostile' : Skt. *krūras* 'wounded', *kravis* 'raw flesh', *κρέας* 'meat', Lat. *cruor* 'blood', *crūdus* 'raw'. IH *kwerty* *kwerty*.

*ku-iš*, *ku-in*, *ku-it* 'who, whom, what' : Lat. *quis*, *quid*, *tis*, *ti*, neut. pl. *ku-(i)e*, *ku-wa-pi* 'where, when', *ku-wa-at* 'why' : Lat. *quod*, *πόθεν* 'whence', Dor. *πᾶι* 'how', *ku-iš-ku* (KBo. 6.3.3.12), *ku-iš-ki*, *ku-iš-ka* 'quisquam' : Skt. *kutra* 'where', Lat. *alicubi* 'elsewhere'; *κως*, *ὅκως*, *κότερος*, *πολλάκι*, *καί*, etc.

IH *kwe/kw-*; *kwey/kwy-*.

*lu-uk-zi*, pret. *lu-uk-ta* (KBo. 5.8.1.26), *lu-uk-ki-e-ir* (KUB 14.1.2.54), *lu-uk-ki-iz-zi* (KBo. 6.2.4.53, 6.3.4.52, 6.11.1.5, 6.12.1.17, 23; KUB 20.10.3.5) 'kindle; grow light' : *λευκός* 'bright', Skt. *rocate* 'shine', Lat. *lūceo*. IH *lewky*.

*ma-ak-la-an-da-an*, *ma-ak-la-an-te-eš* 'thin, lean', *ma-ak-ki-eš-zi* 'grows great', pret. *ma-ak-ki-eš-ta*, part. *ma-ak-ki-iš-ša-an* : *μακρός* 'long', *μᾶκος* 'length'.

IH *mehk-*; *məhk-*.

*mar-kán-zi*, pret. *ma-ra-ak-ta* 'cut up' (a sacrificial victim) : OE *mearh* 'sausage', Arc. *μιαρκυς* 'hare-soup'.

*ni-ik-zi* (KUB 13.4.3.37), pl. *ni-in-kán-zi*, pret. *ni-in-ki-(e)-ir* 'be raised, get drunk', *ni-ni-ik-zi*, *ni-ni-in-kán-zi*, pret. *ni-ni-in-ki-ir*, midd. *ni-ni-ik-ta-ri* 'raise, gather, be exalted' : Skt. *naçati*. *açnoti* 'attain', *nañças* 'attainment', *ἐνεγκεῖν* 'carry', Lat. *nanciscor*, *nactus* 'get'.

IH *nenkty*.

*ša-(a)-ak-la-(a)-iš*, acc. *ša-ak-la-(a)-in*, dat. *ša-ak-la-(a)-i* 'rite, custom' : Lat. *sacer* 'sacred', *sancio* 'ordain'.

*te-ik-ku-uš-ša-mi*, pret. *te-ik-ku-uš-ši-e-it* 'show' [78] : Skt. *diçati*, *δείκνυμι* 'show', Lat. *dīco* 'say'.

IH *deykws-*.

*ú-(e)-ik-zi*, *ú-e-ik-mi*, *ú-e-kán-zi*, *ú-e-ku-un*, *ú-e-ki-ir* 'ask, demand, beg', *ú-e-wa-ak-ki* (KBo. 5.2.1.52), *ú-wa-ak-ki-iz-zi* (KUB 14.4.3.20), *ú-e-wa-ak-ki-nu-un* : Skt. *vañçi* 'desires', *ἐκών* 'willing'. The frequent single writing of *k* between vowels may be due to the influence of the *-g-* of *hu-e-ik-zi* 'charms, sets free from witchcraft' [62a].

IH *wekty*, *wewoke*.

IH *g* = IE *g*, *ǵ*, or the velar part of *gw*

80. IH *g* remains in Hittite, where it is regularly written single. I have given up the etymologies upon which I formerly [HG<sup>1</sup>, §§115f.] based the theory that IH *gw* and *g'w* yielded Hitt. *w*.

*har-ak-zi* 'is destroyed', causat. *har-ga-nu-ši*, *har-ga-nu-an-zi*, *har-ga-nu-ut*, *har-ga-nu-ir* : Arm. *harkanem* 'split, fell', OIr. *orgaim* 'strike, destroy', Gaulish *Orgeto-rīx*.<sup>110</sup>

IH *xorg-*.

*har-ki-iš* 'white' : Skt. *arjunas* 'white, bright', *ἀργός* 'shining', *ἀργικέραυνος* 'having white thunderbolts' [61d].

IH *xergys*.

*hē-kur hē-gur* 'summit, peak' : Skt. *giris*, OCS *gora* 'mountain', *δεῖρας* 'ridge', Skt. *agram* 'point, tip'.

IH *yeqr*.

*hu-(u)-uk-zi* *hu-(e)-ik-zi*, *hu-(u)-kán-zi*, *hu-u-ga-u-en* (KUB 18.12.1.13), *hu-u-ki-eš-kán-zi* 'set free from witchcraft, charm', *hu-u-i-ga-tar*, gen. *hu-u-ga-na-aš* 'charm' : *ἄγνυμι* 'break', *ἀγή* 'breakage, breach', *ἰωγή* 'shelter (against the wind)'.

IH *γweweg-*.

<sup>110</sup> Cuny, RHA 2.205 (1934)

<sup>U</sup>*gi*-(e)-*nu*, gen. *gi-e-nu-wa-aš*, abl. *gi-nu-wa-az* 'knee' : Lat. *genū*, Goth. *kniu*, Skt. *jānu*, Av. *žnu-*, γόνυ.

gen. *ku-ut-ru-aš* (KUB 17.20.3.11), pl. *ku-ut-ru-e-eš* 'witness', *ku-ut-ru-wa-aš-ḫu-un* (HT 8.7) 'I called as witness' : Lith. *gudrūs* 'wise'.<sup>110a</sup> IH *gewdrws*.

*ku-ut-tar ku-ú-tar*, dat. *ku-ut-ta-ni*, inst. *ku-ut-ta-ni-it* 'neck, strength' : Lat. *guttur* 'throat', Goth. *giþus* 'stomach'.<sup>111</sup>

*i-ú-kán i-ú-ga-an* 'yoke' : Skt. *yugam*, ζυγόν, Lat. *iugum*, Goth. *juk*.

IH *ywgom*.

*i-ú-ga-aš, i-ú-ga-aš-ša-aš* 'yearling', *ta-a-i-ú-ga-aš* 'two years old' [61a] : ζεύγος 'team', gen. ζεύγους.

IH *yewgosos*.

IH *g'* = IE *gh, ġh*, or the velar part of *ghw*

**81.** In Hittite texts we find no trace of the aspiration; IH *g'* and *g* are represented in the same way, namely, by *k, g, or q*, written singly.<sup>112</sup>

dat. *ka-a-ri* 'to concession', midd. *ka-ri-ya-aš-ḫa-ḫa-at*, part. *ka-ri-an-za* 'concede' : Skt. *haryati, haryate* 'be gratified', χαίρω 'be glad', χάρις 'grace, favor', Lat. *honor, hortor* 'urge'.

IH *g'or-, g'vr-*.

*kar-pí-iš* 'anger' : Skt. *haras* 'anger', ἡρήτε 'is angry', Av. *zar-* 'make angry', χαρά· ὀργή (Hesych.).

*ka-a-aš-za* (KUB 17.10.1.18), *ga-aš-ta-an* (KUB 24.3.2.32), *ga-aš-ta-aš* (KUB 12.63.1.20), *ka-(a)-aš-ti* 'hunger' : dat. *χῆτ·εἰ* 'lack, need', *χήπα* 'widow', Toch. *kašt* 'hunger'.

IH *g'ehst-*.

*gi-im-ma-an-za* 'winter', gen. *gi-im-ma-an-da-aš* (KUB 13.2.4.24), *gi-im-ma-an-ta-aš* (KUB 20.68.6.2) : χεῖμα, Skt. *hemantas*, Lat. *hiems*, Lith. *žiemà*, OCS *zima*. 'winter'.

IH *g'eymnts*.

*ki-eš-šar, ki-eš-ši-ra-aš* 'hand', acc. *ki-iš-še-ra-an*, dat. *ki-iš-ša-ri(-i) ki-iš-ri*, abl. *ki-iš-ša-ra-az*, acc. pl. *ki-iš-še-ru-uš* : χεῖρ.

*ke-(a)-ra-(a)-pí*, pret. *ka-ri-pa-aš, ka-ri-e-pí-ir* 'devour' : Skt. perf. *jagrābha jagrbhur* 'seize', Eng. *grab*, Lith. *grėbiu grėbti* 'seize violently'. IH *g'rob'e g'reb'vr*.

*ku-en-zi* 'strikes, kills', pl. *ku-na-an-zi*, 1 sg. *ku-e-mi*, 2 sg. *ku-en-ti* (KBo. 3.1.2.45) *ku-e-ti* (KUB 1.16.2.16) : Skt. *hanti*, 3 pl. *ghnanti* 'strike, kill', θείνω 'strike', φόνος 'murder'.

IH *g'wenty*.

*la-a-ki* 'causes to fall', *la-ga-a-ri*, imper. *la-ga-a-ru* 'fall'; *ša-li-ik-zi*, 2 pl. *ša-li-i-kiṭṭe-ni* 'prostrate oneself'; *ša-li-(i-)ga* 'lie with',<sup>113</sup> pret. *ša-li-ga-aš* : λέχος 'bed', λέχεται·κοιμᾶται (Hesych.), Lat. *lectus* 'bed', Goth. *ligan* 'lie', OCS *ležu, ležati* 'lie'.

IH *log'e, leg'ty*.

acc. *li-en-ga-in* 'oath', *li-ik-zi, li-in-ga-zi* 'swears', causat. *li-in-ga-nu-zi*, pret. *li-in-ga-nu-ut li-en-ga-nu-ut, li-in-ga-nu-nu-un li-en-ga-nu-nu-un*, durat. *li-in-ki-iš-ki-it li-in-kiš-ki-it*, imper. *li-in-ki-iš-ki-tin* : ἐλέγχος 'test, disproof', ἐλέγχω 'examine, confute, put to shame', Lett. *langāt* 'insult, call names'.

*ne-ku-zi* 'undresses, goes to bed', midd. pret. *ne-ku-ut-ta-at* 'it was bedtime', nom. and gen. *ne-ku-uz* 'bedtime, evening'; *ne-ku-ma-an-za* 'naked' : νύξ νυκτός,

<sup>110a</sup> Pedersen, AOr. 5.177-9 (1933).

<sup>111</sup> Charles Mudge, Lang. 7.252 (1931); Benveniste, Origines 1.11 (1935).

<sup>112</sup> For the abandoned theory that IH *gw* and *g'w* became Hitt. *w*, see [80].

<sup>113</sup> Sturtevant, Lang. 12.189 f. (1936).

Lat. *nox noctis* 'night'; *nūdus*, Goth. *naqaps*, γυμνός, Skt. *nagnas* 'naked' [78]. The Indo-European languages lack finite verb forms but possess, aside from derivatives in *t*-suffixes like the Hittite noun *ne-ku-uz*, such forms as *νύχα·νύκτωρ* (Hesych.), ἐννυχός 'of night', παννύχιος 'all-night', αὐτονοχί 'in the same night', whose aspirate proves that the second consonant of the IH word was *g'*.

IH *neg'wty*; *neg'w-mōnts*.<sup>114</sup>

*pa-an-ku-uš*, acc. *pa-(a)an-ku-un*, gen. *pa-an-ga-u-wa-aš*, dat. *pa-an-ga-u-i pa-an-ga-u-e pa-an-ga-u-wi* 'all, whole, senate' : Skt. *bahus* 'much', παχύς 'thick'.

IH *b'eng'ēws*.

*pār-ku-uš* 'high', gen. *pār-ku-wa-aš*, pl. *pār-ku-wa-a-eš pār-ga-u-e-eš*, acc. *pār-ga-u-uš*, dat. *pār-ga-(a)u-wa-aš* : Arm. *barjr* (*u*-stem)<sup>115</sup> 'high', Skt. *bṛhant-* 'high'.

IH *b'erg'w-*.

pl. *da-lu-ga-e-eš*, dat. *da-a-lu-ga-u-wa-aš* (KUB 27.67.2.40, 3.44), 'long', *da-lu-ga-aš-ti* 'length', *ta-lu-ki-iš-zi* 'becomes long' : Skt. *dīrghas*, δολιχός, OCS *dlъgъ* 'long'.

*da-an-ku-i-iš* 'black, dark', acc. *da-an-ku-in* (KUB 25.23.4.58), neut. *da-an-ku-i* (KUB 12.58.2.22), pl. *ta-an-ku-(wa-)e-eš* : *δνόφος* 'darkness', *δνοφερός* (Hom., etc.) 'dark'.

IH *d'ong'w-*.

*te-(e)-kán* 'earth', gen. *ták-na-(a)aš*, dat. *ták-ni-i, ták-na-a, da-ga-(a)-an ta-ga-(a)-an* 'to the ground', *ta-ga-an-zi-pa-aš* (KUB 29.7.2.54, 55), acc. *da-ga-an-zi-pa-an*, gen. *da-ga-(an)-zi-pa-aš* 'ground, floor' : Toch. A *tkq*, B *kę* 'place', Skt. *kṣās*, loc. *kṣami*, χθών 'earth', χαμαί 'on the ground'. Greek and Sanskrit show metathesis of IH *d'g'*.<sup>116</sup>

## IH *t*

**82.** IH *t* = IE *t* remains in Hittite, except that before *i* or *ē* [82b, c] it becomes *ts* (written *z* or *zz*). Hitt. *t* is distinguished from *d* by double writing where that is possible, and sometimes a silent vowel is inserted to make it possible. For the development of IH *tst*, see [84a].

*ḫa-an-za* (KUB 14.3.3.1) 'front', dat. *ḫa-an-ta-(i) ḫa-an-di ḫa-an-da* (KBo. 3.21.2.12, 3.41.2.15) : *ἀντι* 'opposite', *ἄντα* 'face to face'. IH *xents*, *xenty*.

*ḫa-aš-ta-(a)-i ḫa-aš-da-a-i* 'skeleton, bones', gen. *ḫa-aš-ti-ya-aš* : Skt. *asthi*, ὀστέον 'bone'.

IH *γost'ey-*.

*kat-ta, kat-ta-an* 'with, together, down' : *κατά, κατὰ* 'along, according to, down, Lat. *co(m)-, cum* 'with'.

IH *ko(m)tēm*.

*gi-im-ma-an-da-aš gi-im-ma-an-ta-aš* 'of winter' : *χείματος* 'of winter', Skt. *hemanta-* 'winter'.

IH *g'eymōnts*.

*ku-ut-tar* (KBo. 3.46.1.41) 'neck, strength', dat. *ku-ut-ta-ni* (KUB 11.1.4.6), inst. *ku-ut-ta-ni-il* : Lat. *guttur* 'throat'.

*mi-li-it* 'honey' : *μέλι, μέλιτος*, Goth. *milib*.

*píd-da-a-iz-zi, píd-da-(a)-an-zi*, pret. *píd-da-a-iš píd-da-a-it*, durat. *píd-da-a-eš-kán-zi píd-da-a-iš-kán-zi* 'flee, fly' : *πέτομαι* 'fly', Lat. *petō* 'go to'. IH *pet-*.

<sup>114</sup> Cf. Sturtevant, JAOS 52.10 f. (1932); Austin, Lang. 18.24 (1942).

<sup>115</sup> This correspondence between Hittite and Armenian should be added to those listed by Austin in Lang. 18.22-5 (1942). This item impressed Edward Sapir as being especially significant.

<sup>116</sup> Pedersen, Groupm. 41 f. (1925); Paul Kretschmer, Glotta 20.65-7 (1932).

dat. *ši-ip-ta-mi-ya* 'seventh' : Skt. *saptamas*, Lat. *septimus*.

*iš-ta-an-ta-it* *iš-ta-an-da-a-it* 'tarried', 1 sg. *iš-ta-an-ta-nu-un* (KBo. 5.8.1.18) : Goth. *standan* 'stand'.

*iš-tap-pi* *iš-da-(a)pi*, *iš-tap-pa-an-zi*, pret. *iš-tap-pa-aš* *iš-tap-ta*, part. *iš-tap-pa-an*, *iš-tap-pa-an-te-eš* 'cause to remain, cover, store up' : Skt. *sthāpayati* 'causes to stand'.

*ti-it-ta-mi* (KUB 1 b l. 2), *ti-it-ta-nu-un* 'place'; *ti-it-ta-nu-(uz-)zi*, *ti-it-ta-nu-an-zi* 'place' : Skt. *tisṭhāmi*, ἵστημι, Lat. *sistō* 'place'.

(IH *steh-* contained *s*-movable.)

*ta*, sentence connective in early and archaizing texts, especially in such phrases as *ta-aš* 'et is', *ta-an* 'et eum', *ta-at* 'et id' : Skt. *tam*, *tad*, τόν, τό [187].

IH *to* 'then, next'.

*-ta*; e.g. *nu-ut-ta* 'et te, et tibi', *nu-ut-tak-kán* = *nu* + *ta* + *kan*, *am-mu-uk-ma-wa-at-ta* = *ammuk* + *ma* + *wa* + *ta* : Skt. *te*, τοι [171].

*ta-(a)-i-e-(iz-)zi* *da-(a)-i-ya-(az-)zi* 'steals' : Skt. *tāyus* 'thief', ῥηράω 'deprive of'.

*te-ri-ip-zi*, part. *te-ri-ip-pa-an* 'plow',<sup>117</sup> durat. *te-ri-ip-pi-iš-kán-zi*, gen. *te-ri-ip-pi-aš* (VBoT 24.3.14, 15), abl. *te-ri-ip-pi-ya-az* (VBoT 24.3.26) 'plowed field' : ῥέπω 'turn'.

*ú-e-eš-ta-ra-aš* 'shepherd' : Av. *vāstar-* 'shepherd'.

*ú-it-ta-an* (KUB 29.1.2.9) 'year', dat. *ú-i-ti* (KBo. 3.8.3.2, 19), *ú-it-ti* (KBo. 3.22.1.10) : ἔτος 'year', Lat. *vetus* 'old'.

IH *t* survives in the personal endings of the second plural, e.g. *pa-it-te-ni* 'you go', *na-iš-tin* 'lead ye!'; of the preterit third singular of the *mi*-conjugation, e.g. *pa-it* 'he went'; of the midd. 3 sg. *ki-it-ta(-ri)* 'lies' (cf. κείτο, Skt. *çeta* 'lay', Lat. *sequitur*).

**82a.** Final *t* after a consonant is lost. The available evidence concerns only the groups *-nt* and *-st*; but if these required simplification it is unlikely that final *t* persisted after any consonant. The neuter nominative-accusative singular of *nt*-stems shows final *n*; e.g. *ḫu-u-ma-an* from *ḫu-u-ma-an-za*, acc. *ḫu-u-ma-an-da-an* 'all, whole'. The preterit third singular of the *ḫi*-conjugation often ends in *s*; the form is historically identical with the third singular of the IE *s*-aorist (Hitt. *na-(a)-iš* 'he led, turned, drove' = Skt. *naiṣ* 'he led').

Frequently final *t* (written *-ta*) is restored by analogy; e.g. *e-eš-ta* 'he was' [255], *ki-iš-šar-ta* 'by hand' [141].

**82b.** Before the change of early Hitt. *e* to *i*, *t* before *ī* became *ts* (written *z* or *zz*), unless *t* was preceded by *s* or *k*.

The personal endings of the third singular and plural of the *mi*-conjugation illustrate the change; e.g. *pa-iz-zi* 'he goes' : Skt. *eti*, Lat. *it*, Dor. ῥιθητι; *a-ša-an-zi* 'they are' : Skt. *santi*, Dor. ἔντι, Osc. *sent*, Goth. *sind*. The contrasting behavior of Hitt. *ti* from earlier *te* and of inherited *ti* is illustrated by inst. *ki-iš-ta-an-ti-it* 'by hunger' (KUB 17.10.1.18) and midd. pret. *ki-iš-ta-an-zi-at-ta-at* 'he was hungry'. The retention of *t* after *k* is illustrated by dat. <sup>GI8</sup>*lu-ut-ti-ya* = <sup>GI8</sup>*AB-ya* 'to the window' (< IH *lewktys*). The retention of early Hitt. *-sti-* is

<sup>117</sup> Götze, NBr. 62 (1930).



illustrated by *da-lu-ga-aš-ti* 'length', *pal-ḥa-a-aš-ti* 'breadth', *da-ma-aš-ti* 'he presses, oppresses' (KBo. 5.9.2.26). The analogical extension of *-zi* to the third singular of *s*-stems is common, e.g. *da-ma-aš-zi* (KBo. 4.2.1.42, 44), *ta-ma-aš-zi* (KUB 9.15.2.6, 7), *e-eš-zi* 'is', *še-eš-zi* 'sleeps'.

The other Anatolian languages do not share this change; they retain inherited *t* before IH *y* and seem, therefore, to be more closely related to one another than any one of them is to Hittite.

**82c.** IH *t* before *ē* becomes Hitt. *ts* (written *z* or *zz*);<sup>118</sup> *šar-ni-ik-zi-il šar-ni-ik-zi-el* 'indemnification', *ta-ya-zi-il* 'theft' : Lat. *sūtēla* 'a frame-up', *tūtēla* 'guardianship'. The nom. sg. *zi-ik* 'tu' must correspond etymologically with Osc. *tiium*, *tiū* 'tu', and also with Lat. *tē*, the accusative form.

### IH *d*

**83.** IH *d* = IE *d* remains in Hittite, where it is regularly written as single *t* or *d*. Hitt. *d* + *s* yields *ts*, which is written *z* or *zz*. For the development of IH *dsd*, etc., see [84a].

*e-it-mi* 'I eat', *e-te-ir* 'they ate', imper. *e-it*, *a-tu-e-ni* 'we eat', *a-da-an-zi* 'they eat', infin. *a-da-an-na*, w. suffix *-sa* [237] *e-iz-za-a-i* 'eats', durat. *az-zi-ki-iz-zi* : Skt. *atti* 'eats', *ἔδομαι* 'will eat', Lat. *edō* 'eat'. IH 'ed-, 'bd-.

*e-di* (KBo. 3.41.2.12, 6.13.1.16, 26.2.3) *i-di* (KBo. 6.26.2.5) *e-da-ni* 'ei', *e-te-iz* (KBo. 5.8.3.18) *e-di-iz(-za)* 'eō' : Umbr. *eřek erse* 'idem', Osc. *ekkrum* 'item', Lat. *ecce* 'voici'. IH 'ed-.

*ḥa-aš-du-ir ḥa-aš-du-e-ir* 'boughs', minus the suffix *-wer* [101], = *ḫos*, Goth. *asts* 'bough' from IH *yo-sd-* 'a sitting together'. The root *sed-* 'sit' appears also in Hitt. *pār-aš-du-uš* 'young shoots' (KUB 17.10.1.16).

gen. *kar-ta-aš kar-di-(ya)-aš*, dat. *kar-di* 'heart' : *καρδία*, Lat. *cor cordis* 'heart'.

gen. *ku-ut-ru-aš*, pl. *ku-ut-ru-e-eš* 'witness' : Lith. *gudrūs* 'wise'. IH *gewdrws*.

*pí-e-da-an* 'place', dat. *pí-di pí-e-di pí-e-ti pí-e-te pí-e-di-eš-ši* : *πέδον*, Umbr. *pěrum persom-e* 'ground'. IH *pedom*.

*ši-(ip-)pa-an-ti, ši-(ip-)pa-an-da-an-zi* 'pour a libation', durat. *ši-(ip-)pa-an-za-ki-iz-zi* : *σπένδω*. IH *sponde*.

*da-a-i*, pl. *da-an-zi*, 1 pl. *tum-me-ni* 'take' : Skt. *dadāmi*, *δίδωμι*, Lat. *dō* 'give' [76]. IH *deh-*.

pl. *da-lu-ga-e-eš* 'long' : Skt. *dīrghas*, *δολιχός*, OCS *dlǫgъ* 'long'.

*da-ma-aš-zi ta-ma-aš-zi* 'oppress', pret. *ta-ma-aš-ta, da-ma-aš-šu-un ta-ma-aš-šir* : Skt. *damayati*, *δάμνημι, δαμάζω*, Lat. *domō* 'tame, subdue'.

*da-a-an ta-a-an* 'iterum' : Lat. *dis-* 'in two directions, apart'. IH initial *dw* probably would have survived.<sup>119</sup> IH *do-*.

GIŠ-*ru*, dat. *ta-ru-ú-i* 'wood' : *δόρυ* 'tree, lumber'. IH *dorw*.

*te-ik-ku-uš-šami*, pret. *te-ik-ku-uš-ši-e-it* 'show' [78] : *δεικνυμι* 'show'.

IH *deykws-*.

*wa-a-tar* 'water' : *ῥδωρ*, Goth. *watō* 'water'.

*wa-tar-na-aḥ-zi*, 1 sg. *wa-a-tar-na-aḥ-mi*, pret. *wa-(a-)tar-na-aḥ-ta* 'communicate' : *ἀνδῆ* 'voice', Skt. *vadati* 'speaks'.

<sup>118</sup> Petersen, Lang. 6.174 (1930); Benveniste, Origines 1.42 (1935).

<sup>119</sup> Sturtevant, AJP 48.247-9 (1929).



**83a.** The suffix *-tar*, gen. *-nnas*, which appears in many verbal abstracts, has been identified by Benveniste<sup>120</sup> with that of Lat. *iter itineris*. The initial consonant of the suffix in the nominative-accusative is consistently written with single *t*, and it must therefore be pronounced *d*. Probably, while *t* before *n* in the oblique cases was undergoing assimilation, one stage was *-dn*, and at this time analogy carried *d* into the nominative-accusative.

#### IH *d'*

**84.** IH *d'* = IE *dh* yields a Hittite phoneme which is written as a single *t* or *d*. IH *d'* + *s* yields *ts*, which is written *z* or *zz*.

*an-dur-za* 'within'<sup>121</sup> from IH *an-d'ur-ts* 'indoors': *θūpa*, Lat. *forēs*, Welsh, OBret., Cornish *dor*, OE *duri*.

*hur-ta-(a-i)š*, gen. *hur-ti-ya-aš* *hu-u-ur-ti-ya-aš* 'a curse', *hur-da-i* 'he curses', pret. *hu-wa-ar-ta-aš*, part. *hur-ta-an-za*, durat. *hur-za-ki-iz-zi*, verb. n. *hu-u-wa-ar-za-ki-u-wa-ar* (KBo. 1.45.2.2) : Lat. *verbum*, Goth. *waúrd* 'word', Lith. *vardas* 'name'.

IH *γwerd'*-<sup>122</sup>

*i-il* 'go!' (imper.) : *iθi*, Skt. *ihi* 'go!'; *ar-nu-ut* 'bring!' Cf. [282, 283]. Cf. Skt. (RV) *inuhi* 'send!'

IH *-d'*.

*te-iḫ-ḫi* 'I place', 3 sg. *da-a-i*, pret. *te-iḫ-ḫu-un*, 3 sg. *da-(a-i)š*, durat. *zi-ik-ki-iz-zi* : Skt. *dadhāti*, *ῥιθημι* 'place, put'. IE *dhē-dhə-* <

IH *d'e'-d'e'-*.

*da-an-ku-i-iš* 'black, dark' : *δνóφος* 'darkness'.

IH *d'ong'w-*.

*te-(e)-kán* 'earth', *da-ga-(a)-an* 'to the ground' : *χθών* 'earth', *χαμαί* 'on the ground'.

IH *d'eg'-*.

*te-pu-uš* (KUB 29.8.1.34), neut. *te-(e)-pu* 'small', *te-ip-nu-zi* 'make small, revile' : Skt. *dabhras* 'little', *dabhnoti* 'harms, deceives', *adbhutas* 'wonderful'.

IH *d'eb'ws*.

*ud-ne(-e) ud-ni(-i) ud-ni-e* 'country' : Skt. *ūdhar*, *ūdhnas*, *oḍḍap*, Lat. *uber* 'breast; rich, fertile' [127b].<sup>123</sup>

*ú-e-te-iz-zi ú-e-da-an-zi* 'build', pret. *ú-e-te-it*, *ú-e-te-nu-un* appears to be a thematic verb from IH root *d'e'-* = IE *dhē-*. It is combined with *ḫi*-conjugation forms such as pret. 1 sg. *ú-e-da-aḫ-ḫu-un*, 1 pl. *ú-e-du-me-en ú-e-tum-me-en*, infin. *ú-e-tum-ma-an-zi*, verb. n. *ú-e-tum-mar*.

**84a.** The fact that in most of the Indo-European languages an *s* regularly appears in consonant clusters resulting from dental stop plus dental stop led Brugmann<sup>124</sup> to postulate the development of a sibilant within the several groups (*t<sup>s</sup>t*, *d<sup>s</sup>d*, *d<sup>s</sup>dh*) before the separation of the Indo-European languages. Some improvements in the theory are registered in an article by Roland Kent,<sup>125</sup>

<sup>120</sup> Origines 1.103-8 (1935).

<sup>121</sup> Friedrich, Vertr. 1.167 (1926).

<sup>122</sup> IHL 50, 64 (1942).

<sup>123</sup> Cf. Hom. *oḍḍap ἀπόβης*, Vergil *uber arvi*, Cicero *ubertās agrōrum*. The Hittite word, which has the same form for singular and plural, is probably an old dual, IH *w'd'ne*. This was one of the group of old duals for pairs of bodily parts. It is scarcely surprising that the singular survives in IE and the dual alone in Hittite.

<sup>124</sup> Grundr. 2 1.624 (1897).

<sup>125</sup> Lang. 8.18-26 (1932).

who writes *tst*, etc. I pointed out in a discussion of archaism<sup>126</sup> that Hittite is the only one of the actually preserved languages that retains instances of *tst*, etc., of this origin. From the root 'ed- 'eat' we have 3 sg. *e-iz-zi* (KUB 17.28.4.41) *e-iz-za-zi* (KUB 17.28.4.40) *e-iz-za-az-zi* (KUB 13.4.4.40, 13.17.4.3) *e-za-az-zi* (KUB 7.1.2.10), all of which are to be read *etstsi*; 2 pl. *az-za-aš-te-ni* (KUB 1.16.3.34, 48) for *atsteni* and *(e-)iz-za-at-te-ni* for *etsteni*; pret. 3 sg. *e-iz-ta* for *etst* or *etsta*.<sup>127</sup>

IH *p*

**85.** IH *p* = IE *p* remains in Hittite, where it is regularly written double, if that is possible, and sometimes a silent vowel is inserted to make it possible. The contrasting phoneme always stands for IH *b'* as far as we know. No evidence for IH *b* has been observed.

*a-ap-pa* 'afterwards, again, back again': *ἀψ* 'backwards, back again, in return'; Lat. *absque* 'without, contrary to', *abrogo* 'repeal'.<sup>128</sup> IH *hep*-.  
*e-ip-zi* 'take, marry, begin', 3 pl. *ap-pa-an-zi*: Lat. *coeipi* 'I began', *apiscor* 'gain, attain'.<sup>129</sup> IH 'e'p-, 'u'p-.

*li-(ip)-pa-(a)-an-zi* 'they spread, smear': Skt. *limpati* 'smears', *λίπος* 'animal fat', *λίπαρος* 'oily'. IH *lyp*-.  
*pa-aḥ-ḥur pa-aḥ-ḥu-ur pa-aḥ-ḥu-wa-ar* 'fire', gen. *pa-aḥ-ḥu-e-na-aš*, dat. *pa-aḥ-ḥu-(e)-ni*: *πῦρ πυρός*, etc.<sup>130</sup>

*pal-ḥi-iš* 'broad', neut. *pal-ḥi*, *pal-ḥa-an*, *pal-ḥa-aš-ti* 'breadth': Lat. *palam* 'in public', *plānus* 'flat', Lith. *plónas* 'thin'<sup>131</sup> [65].  
*pār-aḥ-zi pār-ḥa-zi pār-ḥa-an-zi* 'drive': *περάω πέρνημι* 'cross', Goth. *faran farjan* 'travel'<sup>132</sup> [74]. IH *perx*-.  
*pa-a-ši* (HT 1.1.42), *pa-aš-zi* (KUB 7.1.1.30), pret. *pa-aš-ta* 'drink': Skt. *pānti* 'they drink', aor. midd. *pāsta*. IH *pehs*-.  
*pī-e-da-an* 'place': *πέδον*, Umbr. *peṛum* 'ground'. IH *pedom*.  
*pīd-da-a-iz-zi pīd-da-(a)-an-zi* 'flee, fly': *πέτομαι* 'fly', Lat. *peto* 'go to'. IH *pet*-.  
*pa-ra-a* 'forth, forward, before, besides': *πρό*, Skt. *pra*, Av. *frā*, Lat. *prō*.<sup>133</sup>  
dat. *ši-ip-ta-mi-ya* 'seventh': Skt. *saptamas*, Lat. *septimus*. IH *septmos*.  
*ši-(ip)-pa-an-ti* 'pours a libation', 1 sg. *ši-pa-an-daḥ-ḥi ši-pa-an-da-aḥ-ḥi* [83]. IH *sponde*.  
*iš-pa-a-ri* 'spreads, tramples', pl. *iš-pār-ra-an-zi iš-pa-ra-an-zi*, 1 sg. *iš-pār-aḥ-ḥi* (KUB 7.57.1.8) *iš-pa-ar-ḥi* (KUB 12.44.2.30), *iš-pār-ri-ya-az-zi iš-pār-ri-iz-zi*: *σπείρω, ἐσπαρκα, ἐσπάρην* 'scatter, strew, sow'.

<sup>126</sup> Lang. 9.6 f. (1933) = HG<sup>1</sup> 129. Cf. Milewski, L'IE 9 (1936).

<sup>127</sup> Götze, Madd. 126 and fnn. 2-5 (1928), discusses the various ways of writing *-tst-* in Hittite.

<sup>128</sup> IHL 45, 61 (1942).

<sup>129</sup> IHL 54.

<sup>130</sup> IHL 36 f.

<sup>131</sup> IHL 42.

<sup>132</sup> IHL 37.

<sup>133</sup> Sturtevant, Mél. Boisacq 2.285-7 (1938).

*iš-tap-pí iš-da-(a-)pí, iš-tap-pa-an-zi*, pret. *iš-tap-pa-aš* 'shut, enclose, cover, store up': Skt. *stāpayati* 'cause to stand'. IH *stehp-*.  
*te-ri-ip-zi* 'plow', durat. *te-ri-ip-pí-iš-kán-zi* (KUB 13.1.4.24): *τρέπω* 'turn'.  
*(u-)up-zi* '(the sun) rises', pret. *u-up-ta*: Skt. *upa* 'up, hither'.

IH *b'*

86. IH *b'* = IE *bh* yields a Hittite phoneme which is written *p* or *b*, regularly single [85].

*al-pa-aš* 'cloud': *ἄλφος* 'dull white leprosy', Lat. *albus* 'white'.<sup>134</sup>

acc. *ar-pa-an* 'bad luck', neut. *ar-pu-u-wa-an*, pl. *ar-pu-wa-an-te-eš* 'unlucky': *ὀρφανός* 'orphan', Lat. *orbus* 'bereft', Goth. *arbi* 'inheritance', *arbaiþs* 'distress, toil'. IH 'orb'os.

*ka-(a-)ra-(a-)pí* 'devours', pret. *ka-ri-pa-aš*, pl. *ka-ri-e-pí-ir*: Skt. *jagrābha* 'seize', Eng. *grab* [81]. IH *g'rob'e*.

*ne-pí-iš* 'sky': *νέφος* 'cloud', Skt. *nābhas* 'sky, cloud, mist'. IH *neb'es*.

*pa-an-ku-uš*, gen. *pa-an-ga-u-wa-aš* 'all, whole': *παχός* 'thick', Skt. *bahus* 'abundant, much' [81]. IH *b'eng'ews*.

*pár-ku-iš* 'pure': Skt. *bhrājate* 'shines', Goth. *bairhts* 'bright'.

*pár-ku-uš* 'high': Arm. *barjṛ* (*u*-stem) 'high', Skt. *bṛhant* 'high, great', Goth. *baírgahei* 'mountainous region'<sup>135</sup> [81]. IH *b'erg'ews*.

neut. *pár-ša-aš* 'bread crumbs'; *pár-ši-ya-(az-)zi*, pl. *pár-ši-(ya-)an-zi* 'break', midd. *pár-ši-ya* (the usual form in ritual texts), *pár-ši-it-ta-ri* 'breaks (bread)': *τὸ φάσος* 'part cut off'.

acc. *pa-aš-ši-la-an*, pl. *pa-aš-ši-lu-uš* 'gravel': Skt. *bhasma* 'ashes', *ψῆφος* 'pebble', *ψάμμος* 'sand'.

*te-pu-uš*, neut. *te-(e-)pu* 'small', *te-ip-nu-zi* 'make small, revile': Skt. *dabhras* 'little', *dabhnōti* 'harms, deceives', *adbhūtas* 'wonderful' [84]. IH *d'eb'ws*

*wa-ar-ap-zi* 'washes' (especially with soap), pl. *wa-ar-pa-an-zi*, infin. *wa-ar-pu-(u-wa-)an-zi*, durat. 2 sg. *wa-ar-pí-iš-ki-ši*: Goth. *af-swaírban* 'wipe off', OE *sweorfan* 'scrub', Welsh *chwerfu* 'whirl'.<sup>136</sup>

IH *s*

87. IH *s* remains in Hittite and is written with the *š*-signs. Between vowels it is often written double. Any dental stop plus *s* may be written as *z*. A combination of *n* plus *s* may lose the *n* or may develop a *t* between the two phonemes, in which case the group *nts* is usually written *nz*.

*an-za-a-aš* 'us': IE *ṛs ʷns*, Gmc. *uns*, with a case ending from the Hittite noun declension. We should probably reconstruct IH 'ʷns.

*ar-aš-zi* 'flows': Skt. *arṣati* 'flows'.

*a-ar-aš-ki-iz-zi* 'comes to, reaches': Skt. *ṛcchati* 'goes'.

<sup>134</sup> IHL 58 (1942).

<sup>135</sup> Feist, VWGS, 1939.

<sup>136</sup> Feist, VWGS, 1939.

<sup>137</sup> IHL 52 f. (1942).

*a-aš-šu-uš*, neut. (*a*)-*aš-šu(-u)* 'good, kind, dear' : ἄψ, ἡψ, εὔ-, ὕ-, Skt. *su-*.<sup>137</sup>

IH 'ἔψέως.

*az-zi-ik-ki-iz-zi* 'is eating', pl. *az-zi-ik-kán-zi* (reduced grade of Hittite root *ed-* 'eat' plus suffix *-ske/a-*) [229b].

*e-eš-mi* 'I am' : Skt. *asmi*, 3 pl. *a-ša-an-zi* : Skt. *santi* [56,60].

IH 'έσmy 'ἔσένty.

*e-eš-har iš-har*, gen. *e-eš-(ha-)na-aš* 'blood' : ἡap ἔap, Skt. *asrk*, gen. *asnas*, Lat. *aser* [56, 75].<sup>138</sup>

IH *Έέγsvr*.

*iš-ha-(a-)aš*, dat. *iš-ḥi-(i) eš-ḥé* 'master' : Lat. *erus*.<sup>139</sup>

*ḥa-aš-ta-i*, gen. *ḥa-aš-ti-ya-aš* 'bone, skeleton' : Skt. *asthi*, ὀστέον, Lat. *os* 'bone'.<sup>140</sup>

IH *γest'y- γost'y-*.

*ḥa-aš-du-e-ir* 'boughs' : ὄζος, Goth. *asts* 'bough'. Cf. *pār-aš-du-uš* 'shoots'.

Zero grade of IH root *sed-*, with prefixes.

neut. *ḥu-(u)-i-šu ḥu-(u)-e-šu* 'alive, raw', *ḥu-i-iš-zi* 'lives' : Skt. *vasati*, Goth. *wisan* 'tarry, dwell'.<sup>141</sup>

*ga-ne-eš-zi*, pret. *ka-ni-eš-ta* 'find, love' : Skt. aor. *akāniṣam*, perf. *cākana* 'enjoy, be pleased'.

IH *kñes-*.

*kar-aš-zi* 'cuts off', pl. *kar-ša-an-zi*, pret. *kar-aš-ta*, 1 sg. *kar-šu-un* : ἀκροτε-κόμης 'long-haired'.

*ne-pt-iš*, gen. *ne-pt-ša-aš* : Skt. *nabhas*, gen. *nabhasas*, OCS *nebo*, *nebese* 'sky'.

*pa-ap-pār-aš-zi* 'sprinkles' : Skt. *prṣat* 'drop of water, Czechish *pršeti* 'sprinkle, drizzle, rain'.

*pa-aš-ta* (KUB 29.7.2.55) 'he drank' : Skt. aor. midd. *pāsta* 'he drank'.

*ša-an-aḥ-zi ša-an-ḥa-zi* 'petit' : Skt. *sanoti*, agent noun *sanitā* 'gain' [74].

-še > -ši 'sibi, ei', -še-ša > -ši-iš 'suus, eius', etc. : Lat. *sē*, *suus*, Goth.

*sik*, etc.

dat. *ši-ip-ta-mi-ya* : Skt. *saptamas*, Lat. *septimus* 'seventh'.

*še-eš-zi* : Skt. *sasti* 'sleeps'.

*ši-(ip)-pa-an-ti* : σπένδει 'pours a libation' [83, 85].

*iš-pār-ri-ya-az-zi* 'scatter, strew, sow' : σπείρω [85].

*iš-ta-an-ta-it iš-ta-an-da-a-it* 'tarried' : Goth. *standan* 'stand' [82].

*iš-tap-pi* : Skt. *sthāpayati* 'causes to stand' [76, 82].

*šu-uḥ-ḥa-(a)-i* 'sprinkle, pour', dat. *šu-uḥ-ḥi*, abl. *šu-uḥ-ḥa-az*, acc. pl. *šu-uḥ-ḥu-uš* 'roof' : ṽei 'it rains', Toch. B *suwam* 'it rains'.

*wa-a-ši* 'buys'; *uš-(ša-)ni-ya-zi*, pret. *uš-ša-ni-ya-at* 'sell' : Skt. *vasnam* 'price', Lat. *vēnum* 'sale'.

*ú-e-eš-ša-an-ta* 'they clothe themselves' : Skt. *vaste* 'he clothes himself'.

*ú-e-eš-ta-ra-aš* 'shepherd' <sup>142</sup> : Av. *vāstar-* 'shepherd'.

<sup>138</sup> IHL 48 f.

<sup>139</sup> IHL 57.

<sup>140</sup> IHL 57.

<sup>141</sup> IHL 42.

<sup>142</sup> Sommer, BoSt. 7.60 f. (1922).

durat. *zi-ik-ki-iz-zi* 'places', from zero grade of IH root *d'e*- 'place' and suffix *-ske/o-* [229b].

### s Movable

88. From pre-IH times *s* was extremely common both as initial and as final phoneme of a word, and sometimes it was initial or final of a consonant cluster in one of these positions; collision of final *s* with initial *s* must have been frequent, and complicated consonant clusters must have been produced in this way. Apparently an *s* was often lost in such clusters; probably a long *s* preceded or followed by other consonants was shortened. That is, we may assume that when a consonant plus *s* was followed by an initial *s*, or a final *s* was followed by an initial cluster beginning with *s*, the resulting *-s s-* was simplified, and the remaining *s* might be assigned to either word. Since words appear in different surroundings, the resulting pairs might last for a long time.

Thus we find *σρέγος* beside *ρέγος* 'roof', Skt. *stāyus* beside *tāyus* 'thief', Skt. perf. *paspaçe* beside pres. *paçyati* 'touch'. Hittite adds a number of forms without initial *s* where it might be expected; *ta-a-i-iz-zi* 'steals' [82], *ti-it-ta-nu-uz-zi* 'places' [82], *-ma* 'however': Skt. *-sma*. A similar relationship is to be recognized in Skt. *upa*, *upari* beside Lat. *sub*, *super*, and in *ὄσσε* 'eyes', *ὄμμα* 'eye', *ὄψομαι* 'I shall see', Lat. *oculus* 'eye' beside Hitt. *ša-(a-)ku-wa* 'eyes'.

At least a part of the IE masculine and feminine nominatives singular without final *s* may be explained in the same way. Hittite retains final *-ts* (written *-z* or *-za*) in the nominative singular of all dental stems of masculine gender (*ne-ku-uz* 'evening', *kar-tim-mi-(ya-)az* 'anger', *gi-im-ma-an-za* 'winter', *a-ša-(a-)an-za* 'being'). The final *s* of Av. *haurvatās* 'salvation', *ὁλότης* 'wholeness', and Lat. *sacerdōs* 'priest' is the regular development of the IH final *ts*; Skt. *pāt* 'foot', *marut* 'storm demon', etc., come from the sentence doublets with loss of final *s*.

The Hittite ablative suffix *-z* represents the zero grade of the ablatival adverbial ending *-tós*. In the historical languages this appears in two forms: *-ts* > *-s* (*οὔτως*, *ἐξ*, *ἐνς* > *εἰς* or *ἐς*, *πάρος*, *ἀμφίς*) and *-t*, the familiar ablative ending of the *o*-stems (Skt. *dānāt* = Lat. *dōnōd*, Delphian *οἴκω* 'from the house', *οὔτω* beside *οὔτως*) and also the Hittite instrumentals in final *-t* (*te-eš-ḫi-it* 'by a dream', *zé-e-ya-an-te-it*: nom. *zé-e-ya-an-za* 'cooked', *ga-nu-ut* 'on the knee', *ki-iš-ša-ar-ta* 'by hand') [138].<sup>143</sup>

<sup>143</sup> Sturtevant, Lang. 8.1-10 (1932).

## CHAPTER FOUR

### NOUNS AND ADJECTIVES

#### WORD FORMATION

##### Composition

**89.** I can find no traces in Hittite of the extensive noun composition that must have existed in Proto-IE. There are, however, several fixed phrases just on the verge of becoming compound nouns. Here are a few examples.

URU-*ri-ya-še-eš-šar* (KUB 23.116.1.6), i.e. \**ha-ap-pi-ri-ya-še-eš-šar*<sup>1</sup> 'city population', beside *a-še-eš-šar* 'population'.

*ha-aš-ša ha-an-za-aš-ša* (nom. or acc.) 'grandson (and) great-grandson'.<sup>2</sup> Sometimes the phrase is declined in both members, e.g. dat. *ha-aš-ši ha-an-za-aš-ši*, inst. *ha-aš-še-it ha-an-za-aš-ši-it*, nom. pl. *ha-aš-še-eš ha-an-za-aš-še-eš* [127b].

*hu-uh-ša ha-an-ni-ni-iš*, 'grandfathers (and) grandmothers, ancestors' [127b].<sup>3</sup>

*pit-tar-pal-ḫi-iš* 'broad of wing', the name of a bird,<sup>4</sup> beside *pal-ḫi-iš* 'broad'.

*ta-a-an pi-e-da-aš*, acc. *da-a-an pi-e-da-an* (KUB 10.13.3.6, 8)<sup>5</sup> 'of second rank' (originally a genitival phrase; then an adjective [114]). Cf. *ta-a-an pi-e-da-ša-aḫ-ḫi-ir* 'they made < them > of second rank' [244].

*ta-a-(i)-ú-ga-aš*, *da-a-i-(ú)-ga-aš* 'two years old' (61a) beside *i-ú-ga-aš(-ša-aš)* 'one year old'.

Several Hittite words in *-ššaraš*<sup>6</sup> denote 'the female of the class denoted by the prior member'; *iš-ḫa-aš-ša-ra-aš* 'mistress' : *iš-ḫa-(a)-aš e-eš-ḫa-a-aš* 'master'; *šu-up-pi-eš-šar-aš*, acc. *šu-up-pi-eš-ša-ra-an* 'virgin' : *šu-up-pi-iš* 'pure'. The dative of the word for 'queen' is sometimes written SAL.LUGAL-*ri*; in view of Hitt. *ḫa-aš-šu-uš* 'king', this may mean *ḫa-aš-šu-uš-ša-ri*. We have also a number of women's names in *-šar* (perhaps Luwian) in the Cappadocian tablets of about 1900 B.C.

We may compare Skt. fem. pl. *tisras* 'three', *catasras* 'four', Av. *tišrō čatanrō*, OIr. *teoir*, *cethoir*, IE *swe-sōr-* 'sister', Lat. *uxor* 'wife'. The word *sōr*, pl. *srēs*,

<sup>1</sup> Götze, Madd. 143 fn. 1 (1928), AM 316 (1933). Goetze admonishes me that my interpretation of this word as a phrase verging on a compound is weakened by the existence of the pair *ariyašeššar* 'oracle' : *a-ri-ya-zi* 'inquire by divination'. It seems to me that this pair, at best, suggests an alternative and less satisfactory derivation of URU-*ri-ya-še-eš-šar* 'population of a town' from *ha-ap-pa-ri-ya-mi* 'sell'.

<sup>2</sup> Friedrich, Vertr. 2.36 f. (1930).

<sup>3</sup> Friedrich, AOr. 4.95 (1927).

<sup>4</sup> Friedrich, ZA NF 5.36 (1929).

<sup>5</sup> Götze, Madd. 125 (1928).

<sup>6</sup> Ehelolf, ZA NF 9.184-6 (1935); J. H. Lohmann, IF 54.291 f. (1936); E. Laroche, RHA 7.6-139 (1946-7); Sturtevant, Lang. 25.343-5 (1949).

seems to have meant 'woman', pl. 'women', in Proto-IE and also in Proto-IH; we had better treat the Hittite and Luwian words as stereotyped phrases rather than as derivatives.

### Reduplication

90. Reduplication is fairly common in Hittite both in the noun and in the verb [216]. Here are several of the nouns in which it may appear.

*hal-hal-tu-ma-ri-e-eš* 'corners, cornerstones', or the like.<sup>7</sup>

<sup>DUG</sup> *har-ha-ra-a-an*, dat. *har-ha-ra-i*.

*har-ši-har-ši*, gen. *har-ši-har-ši-ya-aš*<sup>8</sup> 'thunderstorm'.

acc. *ga-ag-ga-pa-an*, pl. *ka-aq-qa-pi-iš*, *ka-(ak-)ka-pu-uš*, an instrument for striking.

*gal-gal-tu-u-ri*, a musical instrument.

abl. *kar-ši-kar-ši-ya-za* (KUB 9.34.3.44) beside *kar-ši-is* 'free, frank, clear' and *kar-ši* 'the truth'.

<sup>ZA</sup> *ku-un-ku-nu-uz-zi-iš* 'diorite'.

<sup>GIS</sup> *ku-uš-ku-uš-šu-ul-li* 'mixer' beside *ku-uš-ku-uš-zi* 'he mixes'.

*lu-ú-lu lu-lu-ú* 'prosperity'.

*me-ma-al* 'meal' beside *ma-al-la-i* 'grinds'.

acc. *pu-u-ur-pu-ra-an*, pl. *pu-u-úr-pu-ri-e-eš*, *pur-pu-ru-uš* 'lump, mass(?)'.

inst. *še-ša-ru-li-it* 'with a strainer' beside *še-ša-ri-iš-ki-tin* 'strain ye!'.

<sup>GIS</sup> *tap-ta-ap-pa-aš*, acc. *tap-ta-ap-pa-an* 'nest'.<sup>9</sup>

*du-ud-du-me-li du-ud-du-mi-li* 'secretly, silently', *du-ud-du-mi-iš* 'deaf'.<sup>10</sup>

*wa-an-te-wa-an-te-ma-aš* 'lightning'<sup>11</sup> beside *wa-an-te-ma-aš* 'heat'.<sup>12</sup>

### Action Nouns

91. Hittite is rich in suffixes forming action nouns. As in other languages, such nouns readily develop on the one hand into infinitives and on the other hand into concrete nouns of various sorts. We shall include words which show either of these developments and also several words that are not citable as action nouns at all.

We shall discuss the following action noun suffixes: *-aiš*, *-an*, *-ul*, *-ur*, *-šar*, *-t*, *-tar*, *-war*, *-mar*, *-wan*, *-wanzi*, *-manzi*, *-zi(š)*, *-ašti(š)*, *-uzzi(š)*, *-el*, *-zel*, *-maš*.

#### *-ai(š)*

92. A number of derivative *i*-stem substantives with nominative singular in *-a-iš* and accusative singular in *-a-in* occur, and I<sup>13</sup> have compared

<sup>7</sup> Friedrich, ZA NF 3.191 (1927).

<sup>8</sup> Götze-Pedersen, MS 50 (1934).

<sup>9</sup> Götze, Kf 1.230 f. (1930).

<sup>10</sup> Friedrich, Elementarb. 2.101 (1946).

<sup>11</sup> Ehelolf ap. Götze, Kf 1.187 and fnn. 1, 2 (1930); Götze-Pedersen, MS 16 and fn. 2 (1934).

<sup>12</sup> Edgerton calls my attention to the existence of such formations in Pāli; e.g. *gala-galāyati* 'roars', *phalāphala* 'all sorts of fruit', *kalakalam* (also Sanskrit) 'a confused murmur'.

<sup>13</sup> Mél. Pedersen 57-62 (1937).

them with Latin *i*-stems with nominative singular in *-ēs* (e.g. *nūbēs*, *aedēs*). A nearly complete collection of the Hittite material is published in the article; a selection will suffice here.

*ḫa-aš-ta-(a)-i ḫa-aš-da-a-i* (nom.-acc. sg. neut.) 'bone, strength, force' : Skt. *asthi*, ὀστέον, Lat. *os ossis*, IE *osthi* [148b]. IH *γῶstḥēy/γῶstḥy*.<sup>14</sup>

*ḫur-ta-(a)-iš ḫu-ur-ta-(a)-iš*, acc. *ḫu-ur-ta-in*, gen. *ḫur-ti-ya-aš*, dat. *ḫur-da-i ḫur-ti-ya*, abl. *ḫu-ur-ti-ya-az* 'a curse', pl. *ḫur-da-a-e-eš*, acc. *ḫur-da-a-uš* : *ḫur-da-i* 'he curses', 1 sg. *ḫu-u-wa-ar-daḫ-ḫi*, pret. *ḫu-wa-ar-ta-aš*;<sup>15</sup> *la-az-za-iš* 'prosperity' : SIG<sub>5</sub>-*in* (acc.) 'prosperous'; acc. *li-in-ga-in* 'oath', acc. pl. *li-in-ga-(a)-uš li-en-ga-uš* : *li-ik-zi li-in-ga-zi* 'swears', pl. *li-in-kán-zi*, pret. *li-(in)-ik-ta*, imper. *li-(in)-ik*, 2 pl. *li-en-ik-tin*; *wa-aš-ta-(i)-iš*, acc. *wa-aš-ta-in* 'sin, injury' : *wa-aš-ta-(a)-i* 'sins'; *za-aḫ-ḫa-(a)-iš*, acc. *za-aḫ-ḫa-in*, gen. *za-aḫ-ḫi-ya-aš*, inst. *za-aḫ-ḫa-it* 'fight, battle' : *za-aḫ-ḫu-u-e-ni* 'we fight', *za-aḫ-ḫi-ir* 'they fought'.

There has been some discussion as to whether Latin nominatives singular in *-ēs* come from IE lengthened grade forms in *-ēis*.<sup>16</sup> The discovery of such words in Hittite furnishes the needed parallel and thus settles the argument; the type of Hitt. *wa-aš-ta-iš* 'sin' and Lat. *nūbēs* 'cloud' is very old. In Hittite such *i*-stems are frequently verbal abstracts.

#### -an<sup>17</sup>

93. This neuter suffix is to be connected with stem final *n* that appears in Indo-Iranian, Greek, and Germanic infinitives.

*ḫi-en-kán ḫi-in-kán ḫi-in-ga-an* 'fate, death' : *ḫi-(in)-ik-zi*, pl. *ḫi-in-kán-zi ḫi-in-ga-an-zi* 'determine'; *ku-(uš)-ša-an ku-ú-ša-an* 'pay, price' : *ku-uš-ḫa-ḫa-at* 'I repaid', *ku-ú-ša-ta* 'bride price'; inst.<sup>18</sup> *li-in-kán-ta* : *li-ik-zi li-in-ga-zi* 'swears'; *na-aḫ-ḫa-(a)-an* 'fear, reverence' : *na-aḫ-mi* 'I fear', 2 pl. *na-aḫ-te-(e)-ni*, pret. 1 sg. *na-aḫ-ḫu-un*; *pár-kán* 'atonement' : *pár-ku-iš* 'pure'; *ša-aḫ-ḫa-(a)-an* 'ground rent' : *ša-an-aḫ-zi ṣa-an-ḫa-zi*, pl. *ša-an-ḫa-an-zi*, pret. 1 sg. *ša-an-ḫu-un ṣa-an-aḫ-ḫu-un ṣa-aḫ-ḫu-un* 'petere'.

#### -ul

94. The neuter suffix *ul* finds its nearest analogue in Lat. *cōnsul* beside *cēnseō*, but this word has suffered semantic shift and change of gender.<sup>19</sup> In most words *-ul* represents a syllabic *-l* of IH [64]. It alternates with *-al* (probably from *-əl* [65]). It is sometimes extended by a thematic vowel.

*(a)-aš-šu-ul*, frequently thematic, *aš-šu-la-aš* 'favor, kindness' : *(a)-aš-šu-uš* 'good, kind, favorable', *a-aš-ši-(ya)-an-za* 'beloved', *(a)-aš-ši-ya-tar* 'love'; *iš-ḫi-ú-ul* 'bond, contract, treaty' : *iš-ḫa-a-i* 'binds'; inst. *še-ša-ru-li-it* 'strainer' : imper. 2 pl. *še-ša-ri-iš-ki-tin* 'strain'; *ták-šu-(ú)-ul* 'unity, peace, friendship' : *ták-ki-iš-zi ták-ki-(e)-eš-zi*, pret. *tág-ga-aš-ta ták-ki-iš-ta*, infin. *ták-šu-(wa)-an-zi* 'join';

<sup>14</sup> IHL 57 (1942).

<sup>15</sup> IHL 49 f. (1942).

<sup>16</sup> Sommer, Hdb. d. lat. Laut- und Formenlehre<sup>2</sup> 371; (1914) Manu Leumann, Stolz-Schmalz Lateinische Grammatik<sup>5</sup> 232 (1928).

<sup>17</sup> Götze, Hatt. 55, 91 (1925).

<sup>18</sup> Friedrich, IF 43.316 (1925).

<sup>19</sup> Götze-Pedersen, MS 52 (1934).



dat. *wa-ar-šu-(ú-)li* 'propitiation' : *wa-ar-ši wa-ar-aš-zi*, pret. *wa-ar-aš-ta*, *wa-ar-še-ir* 'propitiate'; *wa-aš-túl wa-aš-du-ul* 'injury, sin' : *wa-aš-ta-(a-)i* 'injure, sin'.

Another ablaut form of the suffix appears in <sup>TUG</sup>*iš-ḫi-(ya-)al* 'band, binder' beside *iš-ḫi-ú-ul*.<sup>20</sup>

-ur<sup>21</sup>

95. This rare suffix seems to consist of the zero-grade of the common suffix -war [101]; the lengthened grade appears in *ḫa-aš-du-ir ḫa-aš-du-e-ir* 'boughs' [83].

*a-ni-ú-úr a-ni-u-ur* 'performance, rite' : *a-ni-ya-(az-)zi* 'performs'; *pár-šu-u-ur*, inst. *pár-šu-u-ri-it* 'bread crumbs' : *pa-ar-ši*, *pár-ša-iz-zi* 'breaks (bread)'. The noun *pa-an-kur*, gen. *pa-an-ku-na-aš*, 'family, relationship' may be related to the adjective *pa-an-ku-uš* 'all, whole'.

-šar, -šnaš<sup>22</sup>

96. This suffix commonly occurs in the form -eš-šar, -eš-na-aš. Traces of it appear in several Indo-European languages; e.g. *ἔχειν* < IE *seǵhe-sen*, etc.; Vedic infinitives in -sani (*bhū-ṣaṇi*, *ne-ṣaṇi*). Rather familiar are IE suffixes -sno- and -snā- (Skt. *kṛtsnas* 'whole' : *κράτος* 'strength'; Lat. *cēna*; Osc. *kersnu* 'cena' < \**kert-snā*; *λάχνη*; Lat. *lāna* 'wool' < \**wlak-snā*).

*a-še-eš-šar* 'assembly, population', dat. *a-še-eš-ni* : *a-ša-(a-)ši*, pl. *a-še-ša-an-zi*, pret. pl. *a-še-(e-)še-ir* 'set, cause to dwell, found (a city)'; *ḫa-an-ne-eš-šar*, gen. *ḫa-an-ne-eš-na-aš* 'lawsuit, court' : *ḫa-an-na-a-i*, pl. *ḫa-an-na-an-zi* 'litigate, decide a lawsuit'; *pár-ḫi-eš-šar*, dat. *pár-ḫi-eš-ni* 'haste' : *pár-aḫ-zi* *pár-ḫi-zi*, pl. *pár-ḫa-an-zi* 'drive'; *ták-še-eš-šar* 'agreement, price' : *ták-ki-(e-)eš-zi* 'joins', infin. *ták-ša-an-na*, sup. *ták-šu-(wa-)an-zi*; *up-pí-eš-šar* 'gift' : *up-pa-a-i* 'send', 1 sg. *up-pa-aḫ-ḫi*, pret. *up-pí-eš-ta*, pl. *up-(pí-)ir*.

-t<sup>23</sup>

97. A suffixed -t is familiar in IE; e.g. Skt. *stut* 'hymn', Lat. *salūs* 'safety'. In Hittite it is used freely with derivative as well as with root-class verbs. One word with suffix -t is common to Hittite and IE, namely, *ne-ku-uz* 'undressing; evening' : *ne-ku-zi* 'undresses' beside Lat. *noct-* 'night' [81].

*a-ni-ya-az* 'performance', acc. *a-ni-ya-at-ta-an* : *a-ni-ya-(az-)zi* 'performs'; gen. *ḫa-an-da-at-ta-aš* 'truth' : *ḫa-an-da-(a-)iz-zi* 'establishes', *ḫa-an-da-aš* 'firm, true'; dat. *kar-ša-at-ti*<sup>24</sup> 'a cutting off' : *kar-aš-zi* 'cuts off', pl. *kar-ša-an-zi*; *kar-tim-mi-(ya-)az*, acc. *kar-tim-mi-ya-at-ta-an* 'anger' : *kar-tim-mi-ya-nu-un* 'I was angry'; dat. *ma-a-ni-ya-aḫ-ḫi-ya-at-ti* 'jurisdiction' : *ma-ni-ya-aḫ-zi* 'appoints, governs', pl. *ma-ni-ya-aḫ-ḫa-an-zi*, durat. *ma-ni-ya-aḫ-ḫi-eš-ki-iz-zi*; *na-aḫ-ša-ra-az na-aḫ-šar-az*, acc. *na-aḫ-ša-ra-at-ta-an* 'fear, reverence' : *na-aḫ-ša-ri-ya-az-zi*

<sup>20</sup> Goetze, Tunn. 49 (1938).

<sup>21</sup> Benveniste, *Origines* 1.37 f. (1935).

<sup>22</sup> Benveniste, *Origines* 1.100-3 (1935); Sturtevant, *AJP* 59.97 (1938).

<sup>23</sup> Götze, *Madd* 78 f. (1928).

<sup>24</sup> Sommer, *AU* 227 fn. 2 (1932).

'fears', sup. *na-aḥ-ša-ri-iš-ki-u-wa-an*, causat. *na-aḥ-šar-nu-ut*; acc. *šar-la-at-ta-an*<sup>25</sup> 'praise' : *šar-la-an-zi* 'they praise', pret. *šar-la-a-it*; *du-uš-ga-ra-az* (KUB 25.23, margin B4), acc. *du-uš-ga-ra-at-ta-an* 'joy' : infin. *tu-uš-ga-ra-an-na* 'to enjoy'; gen. *wa-ar-ši-ya-at-ta-aš* 'propitiation' : *wa-ar-ši-ya-(az-)zi* 'propitiates'.

The familiar suffix *-los* of the Indo-European languages is, at least in part, developed from the genitive of the nouns in *-t* [114].

*-tar, -nnaš*<sup>26</sup>

98. Hittite has many abstract nouns formed with suffix *-tar*, usually *-a-tar*. Many of these stand beside verb stems, and frequently they share their initial *-a-* with present forms.

Nearly all the nouns in suffix *-tar* show genitive in *-nnaš* from earlier *-tnas*, but a few words show *-tanaš* or *-tnaš*. *ut-tar*, gen. *ud-da-na-aš*, dat. *ud-da-(a-)ni-(i)*, abl. *ud-da-(a-)na-az* 'affair, law case, magic formula, word' is constantly written with *-tt-* or *-dd-* followed by vowel *-a-*. We may assume that in Proto-IH the phonemic groups *-tno-* and *-tno-* alternated according to the requirements of Sievers' law;<sup>27</sup> after a short vowel *-tno-*, after a long vowel or a consonant *-tno-*. Since IH dental plus dental yielded *-tst-* or *-dzd-* and this persisted in Hittite [84a], and since labial plus dental remained in Hittite (*e-ip-te-ni*, *e-ip-ta*, *e-ip-tin*, *ku-up-tar*, *ku-up-ta*), *ut-tar* probably contains a root ending in an IH velar, perhaps the root seen in Gmc. *weht* (Goth. *ni . . . waiht* 'οὐδέν', OE *nā-wiht* 'nothing'). Another probable case of suffix *-tar* appended directly to a root ending in a consonant is *ku-up-tar* 'remainder', although it cannot be cited in an oblique case, and the etymology is unknown.

*kar-ša-at-tar* (KUB 13.4.4.56, 13.17.4.17) 'castration(?)': *kar-aš-te-ni* (ib.) 'you castrate(?)' is known only from these two citations in duplicate texts of the Instructions for Temple Officials. The word is surely to be connected with the verb cited from the same passage. The oblique stem of the noun is unknown, and the nominative-accusative occurs elsewhere only in KUB 8.75.2.10, 4.16, where 2 *kar-ša-at-tar* means '2 sections' of a field. Can the word be Luwian rather than Hittite? In that case *-tt-* instead of *-t-* may indicate that in that language the change of *t* to *d* in nominative-accusative [99] had not occurred.<sup>28</sup>

Hitt. *ḫu-(u-)i-tar* 'fauna, the animals', gen. *ḫu-it-na-aš* is a derivative of the IH root *ṛweyd-* (IE *weid-*) 'see, know'; it does not contain the suffix *-tar*.<sup>29</sup> It represents IH *ṛweydn̥*, gen. *ṛwydn̥s*, dat. *ṛwydeny*.<sup>30</sup>

<sup>25</sup> Götze, Kf 1.227 (1930).

<sup>26</sup> Benveniste, *Origines* 1.103-10 (1935); Sturtevant, *AJP* 59.96 f. (1938), *IHL* 24 f. (1942), *Lang.* 20.206-11 (1944); Hahn, *TAPA* 74.269-306 (1943); Goetze, *JCS* 2.145-55 (1948).

<sup>27</sup> As modified by Edgerton, *Lang.* 10.235-65 (1934), 19.83-124 (1943); I have explained why I must write *-tno-* rather than *-tno-* in *Lang.* 19.293-311 (1943).

<sup>28</sup> Sommer, *AU* 226-9 (1932), discusses the meaning of the verb *karš-*; and the matter is treated again by Gurney, *HPM* 85-7 (1940), who thinks *kar-ša-at-tar* means something else than 'castration'.

<sup>29</sup> Sturtevant, *Lang.* 20.208 (1944).

<sup>30</sup> Cf. perf. infin. *εἰδέναι* with analogical full grade of the root, and *-αι* final, as in other Greek infinitives.

## Lists and Etymology

99. Other words with suffix *-tar*, *-nnaš* are:

*ag-ga-tar ag-ga-tar*, gen. *ag-ga-an-na-aš*, abl. *ag-ga-an-na-aš* 'death': *a-ki* 'dies', pl. *ak-kán-zi*; *a-ku-wa-tar* (KUB 33.71.3.12) 'a drinking', gen. *a-ku-wa-an-na-aš*, dat. *a-ku-(wa-)an-na : e-ku-(uz-)zi* 'drinks, gives to drink', pl. *a-ku-wa-an-zi*; *a-da-tar* (KUB 33.71.3.12) 'an eating, feeding', dat. *a-da-an-na : a-da-(a-)an-zi* 'they eat'; *al-wa-an-za-tar*, gen. *al-wa-an-za-an-na-aš* 'witchcraft': *al-wa-an-za-aḫ-ḫa-an-za* 'bewitched'; *an-tu-uḫ-ša-(a-)tar*, gen. *an-tu-uḫ-ša-an-na-aš* 'mankind'; *ap-pa-a-tar*, gen. *ap-pa-an-na-aš* 'a taking': *e-ip-zi* 'takes', pl. *ap-pa-an-zi*; *a-ša-(a-)tar*, dat. *a-ša-(a-)an-na* 'a sitting, a seating oneself (on the throne)': *e-ša-(ri)* 'sits, seats oneself', pl. *e-ša-an-da-(ri)*, *a-ša-an-ta a-ša-an-da*; *a-(as-)ši-ya-tar* 'love': *a-aš-ši-ya-at-ta-ri* 'loves' (KUB 24.7.4.37), part. *a-(aš-)ši-(ya-)an-za*, verb. n. *a-aš-ši-ya-u-(wa-)ar*; *ḫa-an-da-(a-)tar ḫa-an-ta-tar : ḫa-an-da-(a-)iz-zi*, pl. *ḫa-an-da-(a-)an-zi* 'establish'; gen. *ḫar-kán-na-aš*, dat. *ḫar-kán-na ḫar-ga-an-na* 'destruction': *ḫar-ak-zi*, pret. 3 pl. *ḫar-ki-e-ir* 'be destroyed'; *ḫa-ad-du-la-tar ḫa-at-tu-la-(a-)tar*, dat. *ḫa-ad-du-la-an-ni* 'health': *ḫa-at-tu-li-iš-ta* 'became well'; *ḫu-iš-wa-(a-)tar*, gen. *TI-an-na-aš*, dat. *ḫu-iš-wa-an-ni* 'life': *ḫu-u-iš-šu-iz-zi* 'is alive', pret. *ḫu-iš-wa-it*; *iš-pí-ya-tar* (KUB 17.10.1.11) 'satiety': *iš-pí-ya-an-te-eš* (HT 1.2.37) 'sated'; *kat-ta-wa-(a-)tar* 'vengeance', gen. *kat-ta-wa-an-na-aš* (etymology unknown); dat. *ku-ut-ru-wa-an-ni* 'evidence': *ku-(u-)ut-ru-wa-a-iz-zi* 'provides evidence, gives witness'; *la-aḫ-ḫi-ya-tar* 'campaign': *la-aḫ-ḫi-ya-mi* 'I campaign'; dat. *ma-ni-ya-aḫ-ḫa-an-ni* 'government': *ma-ni-ya-aḫ-zi ma-ni-ya-aḫ-ḫi* 'governs'; *mar-ša-(a-)tar* 'badness': pret. 3 pl. *mar-še-e-ir* 'they were bad'; *pa-ap-ra-tar* 'uncleanness', gen. *pa-ap-ra-(an-)na-aš : pa-ap-ri-eš-kir* 'they were guilty'; dat. *pí-ya-an-na* 'a giving, sending': 3 pl. *pí-(ya-)an-zi pí-e-(i-ya-)an-zi* 'they give, send'; *šu-ul-la-tar* 'a quarrel', dat. *šu-ul-la-an-ni*, abl. *šu-ul-la-an-na-aš šu-ul-la-an-na-za : šu-ul-la-iz-zi*, pret. *šu-ul-la-(a-)it* 'he quarrels, quarreled'; dat. *da-an-na* 'to take': *da-a-i* 'takes', pl. *da-(a-)an-zi*; gen. *ú-e-ḫa-an-na-aš wa-ḫa-an-n[a-aš]* 'of turning, driving', dat. *wa-ḫa-an-na* 'to turn, drive': *ú-iḫ-zi wa-aḫ-zi* 'turns, drives'; *ú-wa-(a-)tar* 'review, parade', dat. *ú-wa-an-na : ú-wa-an-zi* 'they see', *u-wa-it-ta-(ri)* 'he appears';<sup>31</sup> *za-an-ki-la-tar* 'punishment': *za-an-ki-la-an-zi* 'they punish', imper. *za-an-ki-la-a-an-du*.

There can scarcely be any doubt of Benveniste's etymological connection<sup>32</sup> of Hitt. *i-tar* 'act of going' or 'road' (BO 2072.1.20, reported by Forrer, RHA 1.146—1932) with Lat. *iter*, Toch. *ytār* 'road'. It follows that the IH vowel in the suffix was *e* and that this is an instance of the regular Hittite change of *e* to *a* before *r* [56]. The nearly constant writing of *-t-* rather than *-tt-* in the Hittite suffix demands the pronunciation *-d-*. No doubt the assimilation of *-tn-* to *-nn-* in the oblique cases passed through an intermediate stage *-dn-*, and at that time *-d-* spread into the nominative-accusative.

In the first edition of this book I followed Götze<sup>33</sup> in assigning the verbal

<sup>31</sup> Sturtevant, JAOS 56.284-7 (1936), and references.

<sup>32</sup> Origines 1.104 (1935).

<sup>33</sup> Madd. 94 f. (1928).

nouns in *-tar -nnaš* to intransitive verbs, mainly of the middle voice. There is no valid reason for doing this<sup>34</sup> since Hahn shows that Hittite noun forms do not have the verbal categories of voice or tense [2.436,7].

Our list of forms in *-tar -nnaš* contains several that stand beside middle verbs, but also several that stand beside active verbs. There are a few (e.g. *al-wa-an-za-tar*, *an-tu-uh-ša-tar*) that do not stand beside any verb forms from which they seem to have been derived.

#### Hittite *-nda* : Latin *-ndo*

100. Important for comparative grammar is the identification of Hitt. dat. *-nna* with Lat. *-ndō*, dative of the gerund, and of Hitt. gen. *-nnaš* with Lat. *-ndus*, nominative singular of the gerundive.<sup>35</sup> This etymology involves the assumption of a change of *-tn-* to *-nd-* in pre-Italic, a change involved in the connection of Lat. *unda* with Skt. *udān udnās* 'water' and of Lat. *fundus* with Skt. *budhndās* 'bottom', etc.<sup>36</sup>

The initial *-a-* of Hitt. *-atar -annaš* should correspond with the penultimate vowel of Lat. *dandō*, *dandus* and *agundō*, *agundus*, etc. (Lat. *-endō* and *-endus* must be due to spread of the variable vowel *e* at the expense of *o*, cf. Sommer, Hdb. d. lat. Laut- und Formenlehre 617 f.).

The common Hittite infinitive ending *-anna-* corresponds with archaic datives in *-a* to express end of motion [133e], such as *a-ru-na* 'to the sea', *a-aš-ka* 'to the gate', *lu-ut-ti-ya* 'to the window', *tu-un-na-ki-iš-na* 'to the t.', *ḫa-an-da* 'to the front', *ta-pu-(u-)ša* 'to the side'. Since this formation is citable from all kinds of noun stems, there is no reason for assuming that it points to an IH *o*-stem (e.g. IH *dah-tno-* > IE *dātno-* beside Lat. *dandō*); it may as well belong to the *r/n*-stem that we have been discussing. There is no way of determining the original vocalism of the final syllable.

The genitive in *-annaš* sometimes modifies a noun in the manner of other Hittite genitives, e.g. ANŠU.KUR.RA.MEŠ *ú-e-ḫa-an-na-aš* 'driving(?) horses' (*equi flectendi*<sup>37</sup>) or 'roaming (?) horses'<sup>38</sup> It is well known that such adnominal genitives frequently give rise to *a*-stem adjectives in Hittite.<sup>39</sup> If the genitive singular of consonant stems and the nominative singular of *o*-stem adjectives both ended in *-os* in IH, a similar transfer was possible from very early times; the Latin gerundives may easily have developed out of genitives of verbal nouns in IE *-oter -otnos* or in *-eter -etnos* (whence early Lat. *-ondos*, *andos*) [2.456].

<sup>34</sup> The argument in Goetze, JCS 2.151-6 (1948), is confined to showing that, given the medial diathesis of the forms in *-tar -nnaš*, there is no disproof of the proposition in the present state of our knowledge.

<sup>35</sup> Sturtevant, Lang. 20.206-11 (1944).

<sup>36</sup> Rudolf Thurneysen, KZ 26.301-14 (1883).

<sup>37</sup> This word is intended as genitive singular of the gerund. See Caesar, BG 4.33, who describes the skillful horsemanship of the Celtic *aurigae* of Britain.

<sup>38</sup> I.e. 'brood-mares'. Goetze, JCS 2.152 (1948).

<sup>39</sup> Götze, AM 199-201 (1933); Sturtevant, TAPA 71.573-8 (1940), Lang. 20.209, f. (1944) [2.129].

-war and -mar<sup>40</sup>

**101.** A very common type of action noun is formed by the suffix *-war* and its variant *-mar* [69 and fn. 50a]; *e-šu-u-wa-ar* : *e-eš-zi* 'he is', *ḥa-an-da-a-u-wa-ar* : *ḥa-an-da-a-iz-zi* 'establishes', *pa-a-u-ar* : *pa-a-iz-zi* 'goes', *da-a-u-wa-ar* : *da-a-u-wa-ar* : *da-a-i* 'takes', *a-ar-nu-mar* : *ar-nu-(uz-)zi* 'brings', *tar-nu-mar* : *tar-na-(a-i)* 'puts in, lets in'. Forms of this type regularly represent the Hittite verb in the Akkadian-Hittite vocabularies, where they correspond to the Akkadian infinitives. No wonder the first interpreters of the Hittite documents called these nouns infinitives! Nevertheless the name 'verbal noun' describes their use more accurately.

The original inflection of *-war* (gen. *-unaš*) survives in a few stems; *a-šu-a-u-ar* 'sheepfold', dat. *a-ša-ú-ni*; *pár-ta-u-wa-ar* 'bird's nest', inst. *pár-ta-a-u-ni-it*. In the large majority of words, however, we find a genitive in *-waš* or *-maš* (with the consonant often written double). The regular phonetic development gives e.g. *tar-nu-um-ma-aš* for earlier *\*tar-nu-um-na-aš*; then analogy gave *i-ya-u-wa-aš* for earlier *\*i-ya-u-na-aš*.

The genitive of these verbal nouns, like the genitive in *-maš* from nominative in *-tar* [99, 100], acquires a quasi-gerundival force; *me-mi-ya-aš-ma ku-iš i-ya-u-wa-aš* 'what thing is of doing' comes to mean 'what thing is worth doing'. Hence IKRIBI.ḪI.A-ma *ku-i-e-eš šar-ni-in-ku-e-eš* 'what prayers are to be recited in atonement' seems to contain a plural form (KBo. 2.2.4.8). So also *ḥu-u-wi-ša-u-e-eš* (KUB 17.12.2.9). These may be old genitives in IH *-es* beside *-os*; cf. Lat. *nominis* beside archaic *nominus*.

Many IE infinitives are case forms of nouns containing the suffix *-wer/n-* or *-mer/n-*; e.g. Ved. *dāwane* = Cyp. *δῶναι* 'to give'; Av. *staomaine* 'to praise', Hom. *δόμεναι*, Thess. *δόμεν* 'to give'. There are besides a number of IE words in suffix *-wer/n-*; Av. *snā-var-*, Ved. *snāvan-* 'tendon' (with thematic vowel, *νέυρον*, Lat. *nervus*); Skt. *parvan-* 'knot' : *πεῖραρ* 'end' < *\*περφαρ*, *εἶδαρ* 'food' < *\*εῖδαρ*, *λῦμαρ*, *λῦμα* 'offscourings'.

-wan<sup>42</sup>

**102.** *-wan* is probably a case form of the verbal noun in *-war*, apparently a suffixless dative or locative in origin.<sup>43</sup> It is almost confined to durative verbs, chiefly those in suffix *-ske/a-*, and it is always followed by forms of a finite verb (3 sg. *da-a-i*, 1 pl. *ti-(i)ya-u-e-ni*, 3 pl. *ti-(ya-)an-zi*, 1 sg. pret. *te-iḥ-ḥu-un*, 3 sg. *da-(a-i)š* or *ti-ya-at*, 3 pl. *da-a-ir* or *ti-(i)-e-ir*). The meaning of the whole phrase is 'begin to —'. A majority of the finite verb forms in the phrase are familiar as parts of *dai-* 'place'; and if we assume that this verb was originally at home there, all the forms that occur can easily be explained as analogical extensions of the various forms of that verb. Nevertheless some reason may one day be

<sup>40</sup> Benveniste, *Origines* 1.110-120 (1935).

<sup>42</sup> Götze, *Hatt.* 66 ff. (1925); Götze-Pedersen, *MS* 21 f., 69 f. (1934); Bechtel, *-sk-* 67-9 (1936); Sommer, *Bil.* 177 f. (1938).

<sup>43</sup> Cf. Benveniste, *Origines* 1.114 f. (1935).

discovered for assuming that *da-* 'take' or *tiya-* 'take one's stand' contributed to the collection. I can find no reason for assuming more than the one meaning.<sup>44</sup>

The forms in *-wan* are closely restricted to the verb system; a convenient name for them is *Supine*. Here are examples: *e-eš-šu-wa-an i-iš-šu-wa-an : e-eš-zi* 'set, sit'; *ka-ri-pu-u-wa-an : ka-ra-a-pi ga-ra-pi*, pl. *ka-ri-pa-an-zi* 'devour'; *pid-da-a-an-ni-wa-an : pret. 3 sg. pid-da-an-ni-iš* 'he paid'; *tar-aḫ-ḫu-u-wa-an : tar-aḫ-zi* 'he conquers'; *wa-aš-šu-wa-an : wa-aš-še-iz-zi*, 3 pl. *wa-aš-šu-an-zi*, imper. 2 pl. *ú-e-eš-tin* 'clothe'; *a-zi-ki-wa-an : az-zi-(ik-)ki-(iz-)zi*, 3 pl. *a-da-an-zi* 'eat'; *me-mi-iš-ki-u-(wa-)an : me-mi-iš-ki-iz-zi* 'is speaking'; *na-aḫ-šar-ri-iš-ki-u-an na-aḫ-ša-ri-iš-ki-u-wa-an : na-aḫ-ša-ri-ya-az-zi* 'he fears'; *pt-eš-ki-u-(wa-)an pt-iš-ki-u-an : pt-eš-ki-iz-zi* 'is giving'; *pu-nu-uš-ki-u-wa-an : pu-nu-uš-ki-iz-zi* 'is asking'; *ú-e-eš-ga-u-an ú-e-eš-ki-u-wa-an ú-i-iš-ki-u-wa-an : ú-i-e-iš-ki-iz-zi* 'is calling'.

-wanzi and -manzi<sup>45</sup>

**103.** The endings *-wanzi* and (after *u* of the verb stem<sup>46</sup>) *-manzi* form infinitives (commonly known as supines) from the present stems of verbs; e.g. *ḫar-ru-u-wa-an-zi : ḫar-ra-i*, pl. *ḫar-ra-an-zi* 'destroy'; *ḫar-ni-in-ku-wa-an-zi : ḫar-ni-ik-zi*, pret. pl. *ḫar-ni-in-ki-ir* 'destroy'; *pa-a-u-wa-an-zi : pa-iz-zi*, pl. *pa-(a-)an-zi* 'go'; *ši-pa-an-du-(u-)wa-an-zi ši-pa-an-du-u-an-zi ši-pa-an-tu-u-wa-an-zi : ši-(ip-)pa-an-ti* 'pours a libation'; *da-a-u-wa-an-zi : da-a-i*, pl. *da-a-an-zi* 'take'; *tar-nu-ma-an-zi : tar-na-(a-)i*, 1 pl. *tar-nu-um-me-(e-)ni* 'put in'; *wa-aḫ-nu-(um)-ma-an-zi : wa-aḫ-nu-(uz-)zi* 'cause to turn'.

The *-zi* of these forms must be identified with the dative ending *-i* preceded by the *-t-* that is occasionally appended to noun stems in various Indo-European languages; e.g. gen. *ὄνομα* beside nom. *ὄνομα* and denominative *ὄνομαλιν*, Lat. *cognomentum* beside *cognomen*; Skt. *yakṛt* 'liver', gen. *yakanas* beside *ἥπαρ ἥπατος*. The reason why the regular change to *z* before *-i* remains here but not in datives of other noun stems in *-t* [165, 167] is that the infinitives are isolated. That this is the correct explanation appears from the occasional variant forms in *-ta*; e.g. *ši-pa-an-tu-u-an-ta* 'to pour a libation' (KUB. 10.21.11).

The Hittite suffix *-t* [97] seems to be identical with this *t*.

**104.** For the secondary adjective suffixes *-wanza* and *-manza*, see [119].

-zziš, -zzi<sup>47</sup>

**105.** The familiar IE suffix *-tis* forms feminine action nouns with weak grade of the root. This appears to be cognate with our Hittite suffix, although there are numerous differences.

nom.-acc. *lu-uz-zi*, dat. *lu-uz-zi*, abl. *lu-uz-zi-ya-az* 'taxes'. Cf. *λίσις*, Lat.

<sup>44</sup> Pedersen, Hitt. u. IE 112 f. (1938).

<sup>45</sup> Benveniste, Origines 1.31 (1935).

<sup>46</sup> There is some wavering between forms with *w* and *m*; e.g. *da-a-u-wa-an-zi* beside *tar-nu-ma-an-zi*, but 1 pl. *tu-um-me-ni* 'we take' and *tar-nu-um-me-ni*; *wa-aḫ-nu-um-ma-an-zi* but *(ú-)wa-aḫ-nu-wa-ar* and *wa-aḫ-nu-(wa-)an*. The forms that violate the rule [69] are either dialectic or due to analogy.

<sup>47</sup> Lohmann, IF 51.319-28 (1933); Sturtevant, Lang. 10.266-73 (1934).

*solūtio* 'ransom, payment.' If this etymology is correct, we must suppose that the gender of the Hittite word has been changed, perhaps under the influence of nom.-acc. *ša-aḥ-ḥa-an*, gen. *ša-aḥ-ḥa-na-aš*, dat. *ša-aḥ-ḥa-ni* 'ground rent', the word with which it is frequently coupled in the Law Code.

*tu-uz-zi-iš*, acc. *tu-uz-zi-in*, gen. *tu-uz-zi-(ya)-aš* 'army' may contain the root of Osc. *touto*, OIr. *tuath*, Goth. *þiuda*, Lett. *tāuta* 'people', combined with an equivalent suffix.

acc. *lu-ut-ta-i* 'window', dat. *lu-ut-ti-ya*, *lu-ut-ta-i*, abl. *lu-ut-ti-ya-za*, *lu-ut-ta-an-za* may belong here if we assume that IH *-kt-* becomes Hitt. *-tt-* and remains as such before *-i-*. The word goes with the root of Hitt. *lu-uk-zi* and *lu-uk-ki-iz-zi* 'kindles, lights; grows light'.

Here belong probably the adjectives in *-ezziš* and *-azziš*.

*ap-pi-iz-zi-iš*, EGIR-*iz-zi-iš* 'later, last; lowest', acc. *ap-pi-iz-zi-in*, *ap-pi-iz-zi-ya-an*, dat. *ap-pi-iz-zi*, abl. *ap-pi-iz-zi-(ya)-az* : *a-ap-pa* EGIR-*pa* 'back, again'.

*ḥa-an-te-iz-zi-iš*, *ḥa-an-te-iz-zi-ya-as* 'foremost', acc. *ḥa-an-te-iz-zi-in*, *ḥa-an-te-iz-zi-ya-an*, gen. *ḥa-an-te-iz-zi-aš*, dat. *ḥa-an-te-(iz)-zi* : *ḥa-an-ti* 'in front'.

*ša-ni-iz-zi-iš* 'first, best', dat. *ša-ni-iz-zi* *ša-ne-iz-zi*, abl. *ša-ni-iz-zi-ya-az*, acc. pl. *ša-ni-iz-zi-uš* : *ša-ni-i* *ša-ni-e* *ša-ni-ya* 'ūnī, singulō'.<sup>48</sup>

*ša-ra-az-(zi)-iš* 'upper, best', neut. *ša-ra-(a)-az-zi*, dat. *ša-ra-a-az-zi-ya*, abl. *ša-sa-a-az-zi-ya-az* : *ša-ra-a* 'up'.

Apparently these words were originally abstract nouns ('finality', 'priority', 'primariness', 'height', or the like). They became adjectives in one or both of two ways, either through a declined genitive [114], e.g. *ḥa-an-te-iz-zi-ya-aš* 'of priority, foremost', or without change of form, e.g. *ḥa-an-te-iz-zi-iš* 'foremost'.<sup>49</sup> Possibly some or all of these words may have contained the root *-i-* 'go' (*ḥa-an-ta* 'forwards' plus *\*i-zi-iš* 'a going'), but that is less certain.

-*aštiš*, -*ašti*<sup>50</sup>

106. Since IH *-st-* normally remains in Hittite, this suffix is merely a special case of the one discussed in the previous section. It corresponds to OCS *-ostv*; e.g. *da-lu-ga-aš-ti* 'length' beside *dlōgostv*.

*pal-ḥa-aš-ti-iš*, *pal-ḥa-a-aš-ti* 'breadth' : *pal-ḥi-iš*, acc. *pal-ḥi-i-in* 'broad'; *pār-ga-aš-ti-iš* 'height' : *pār-ku-uš* 'high'; *da-lu-ga-aš-ti* 'length' : abl. *da-lu-ga-ya-az*, nom. pl. *da-lu-ga-e-eš*, acc. *da-lu-ga-uš* *ta-lu-ga-uš*, dat. *da-a-lu-ga-u-wa-aš* (KUB 27.67.2.40, 3.44) 'long'.

-*uzziš*, -*uzzi*<sup>51</sup>

107. This suffix, by which instrument nouns are formed, may come from IH *-ty(s)* with accretion of a preceding *-u-*, perhaps from the causative suffix *-nu-*.

<sup>48</sup> Goetze, AOr. 17.288-97 (1949).

<sup>49</sup> Lohmann's, IF 51.332-5 (1933), suggestion that Hitt. *-zziš* may be traced to original *-tyos* is without foundation. IH dissyllabic *-tyos* would appear in Hittite as *-ti-ya-aš* or as *-zi-ya-aš* and monosyllabic *-tyos* as *i-ya-aš*. How one could get rid of the *-a-*, I cannot see. Furthermore, Hittite development is generally towards the thematic declension rather than the reverse.

<sup>50</sup> Hrozný, SH 23 (1917); Friedrich, ZA NF 5.35, 77 (1930); W. Prellwitz, Glotta 19.93 (1931).

<sup>51</sup> Sommer, BoSt. 10.18 f. (1924); Götze, KIF 1.200 f. (1930).



*ap-pu-(uz)-zi*, gen. *ap-pu-uz-zi-ya-aš* 'tallow' : *e-ip-zi*, pl. *ap-pa-(a)-an-zi* 'take'; acc. *iš-ḫu-uz-zi-in* 'girdle', pl. *iš-ḫu-uz-zi-ya-aš* : *iš-ḫa-a-i* 'binds'; acc. *iš-pa-an-du-uz-zi-in*, neut. *iš-pa-an-du-uz-zi*, gen. *iš-pa-an-tu-uz-zi-aš* 'ladle, libation' : *ši-(ip)-pa-an-ti*<sup>52</sup> 'pours a libation'; *ku-un-ku-nu-uz-zi-iš* 'diorite' : *ku-en-zi*, pl. *ku-na-an-zi* 'strike';<sup>53</sup> *la-(aḫ)-ḫur-nu-(uz)-zi* 'sacrificial table', gen. *la-aḫ-ḫur-nu-zi-aš*, acc. pl. *la-aḫ-ḫur-nu-uz-zi-uš*; <sup>URUD</sup>*ku-ru-uz-zi* 'a cutting tool'<sup>54</sup> : *ku-ir-zi* 'cuts', pl. *ku-ra-an-zi*; *wa-ar-pu-zi*, an implement used in washing : *wa-ar-ap-zi* *wa-ra-ap-zi* 'wash'.

-el, -zel<sup>55</sup>

108. These two suffixes, of which the second is the first combined with preceding IH -t- > Hitt. -z-, reappear in Lat. *querēla*, *loquēla*, *cantēla*, *corruptēla*, *sūtēla*, *tūtēla*.

*ḫu-(u)-ur-ki-il ḫu-u-ur-ki-el ḫur-ki-il* 'death penalty' : *ḫar-ak-zi* 'is destroyed' [220a]; *šu-ú-e-el šu-ú-i-il* 'cord, string'.<sup>56</sup> *šar-ni-ik-zi-(i)-il šar-ni-ik-zi-el* 'indemnification' : *šar-ni-ik-zi*, pl. *šar-ni-in-kán-zi šar-ni-en-kán-zi* 'indemnify'; *ta-ya-az-zi-il*, gen. *ta-ya-zi-la-aš* 'theft' : *ta-(a)-i-(e)-iz-zi* 'steals'.

-maš<sup>57</sup>

109. The IE suffix -mo- forms ordinals, superlatives, and participles. That Hittite had ordinals of this sort is shown by the dat. *ši-ip-ta-mi-ya* 'seventh'. Analogous to the Hittite action nouns are Skt. *gharmas* 'heat', *πρᾶπος* 'a sneezing', *φθογμός* 'a burning', Goth. *dōms* 'judgment', etc.

*la-aḫ-la-aḫ-ḫi-ma-aš* 'conflict, anxiety' [90]: *la-aḫ-ḫi-ya-mi* 'I go to war', *la-aḫ-la-aḫ-ḫi-ya-u-e-ni* (KUB 5.11.4.24) 'we go to war'; *te-it-ḫi-ma-aš* 'thunder' : *te-it-ḫa-i* 'thunders'; *(wa-an-te)-wa-an-te-ma-aš* 'heat, lightning'<sup>58</sup> : *wa-an-ta-iš* 'was warm'; acc. *ú-(e)-ri-te-ma-an* 'fear'.<sup>59</sup>

#### Agent Nouns

-ttaraš -ttallaš<sup>60</sup>

110. Hittite agrees with Slavic against the other Indo-European languages in preferring the suffix -tel- to the suffix -ter- in forming agent nouns. Both suffixes appear in Hittite with the thematic vowel. Hittite -ttaraš has been identified only in *a-ku-ut-tar-aš e-ku-ut-tar-ra-aš* 'drinker' : *e-ku-(uz)-zi*, pl. *a-ku-wa-an-zi* 'drink'; and *ú-e-eš-ta-ra-aš* 'shepherd' : 3 sg. midd. *ú-e-še-ya-at-ta* (KUB 29.1.1.33), durat. 2 sg. *ú-e-ši-eš-ki-ši* 'graze, pasture'.

The more frequent suffix -ttallaš is always preceded by -a-, which usually reappears in the verb stem. Acc. pl. *ar-ša-na-(at-)tal-lu-uš ar-ša-na-at-ta-lu-uš*,

<sup>52</sup> This etymology is possible, of course, only if *iš-pa-* and *ši-(ip)-pa-* are both ways of writing initial *sp-*.

<sup>53</sup> Clive H. Carruthers, *Lang.* 9.154 f. (1933).

<sup>54</sup> Güterbock, *Kumarbi* 78, 108 (1946).

<sup>55</sup> Benveniste, *Origines* 1.42 f. (1935).

<sup>56</sup> Carruthers, *Lang.* 6.161 (1930).

<sup>57</sup> Götze, *KlF* 1.186 f. (1930).

<sup>58</sup> Carruthers, *Lang.* 9.158 f. (1933).

<sup>59</sup> Götze, *KlF* 1.187 fnn. 4, 5 (1930); Benveniste, *BSL* 33.138 (1932).

<sup>60</sup> Hrozný, *SH* 56 f. (1917); Sommer, *BoSt.* 7.60-2 (1922).



dat. pl. *ar-ša-na-(at-)tal-la-aš* 'enviers' : *ar-ša-ni-ya-at* 'envied'; acc. *ma-ni-aḫ-ḫa-tal-la-an* 'governor' : *ma-ni-ya-aḫ-zi*, pl. *ma-ni-ya-aḫ-ḫa-an-zi* 'govern'; acc. *ma-ni-ya-aḫ-ḫi-iš-kat-tal-la-an* : *ma-ni-ya-aḫ-ḫi-eš-ki-iz-zi* 'is governing'; *pal-wa-(at-)tal-la-aš* : *pal-wa-(a)iz-zi*; acc. *u-na-at-tal-la-an* *u-na-at-ta-al-la-an* 'peddler, merchant' : *u-un-na-i*, pl. *u-un-na-an-zi* 'bring'; *uš-ki-iš-ga-tal-la-aš*, acc. pl. *uš-kiš-kat-tal-lu-uš* 'watchman';<sup>61</sup> acc. pl. *ú-wa-tal-lu-uš* 'lookers' : *a-uš-zi*, pl. *ú-wa-an-zi* 'see, look'.

### Participles

#### -anza<sup>62</sup>

111. The participial function that in many Indo-European languages falls to the adjectives in *-tos* is in Hittite carried by the *nt*-formation which is familiar in IE present and aorist active participles. With the suffix a participle can be made from almost any verb and from almost any type of stem except the durative stem in *-ske/a-*. Verbs in stem vowel *-a-* of the *ḫi*-conjugation form participles without the suffixal *-s-* that appears in certain forms, and those in stem vowel *-ai-* form participles exclusively from the supplementary stem in *-ya-*. The IH ablaut of the suffix (*-ent/ont/vnt/nt-*) has given way to the single type *-ant-*, which may come partly from IH *-ont-* and partly from IH *-vnt-*. The only exception I can cite is neut. pl. *ša-an-ḫu-un-da* 'roasted' : *ša-an-ḫu-un-zi* 'they roast', which may be contracted from the variant forms *ša-a-an-ḫu-u-wa-an-ta* and *ša-an-ḫu-wa-an-zi*,<sup>63</sup> or the forms with *-u-wa-* may represent a later thematization. If a stem suffix or a root permits ablaut it usually shows reduced grade or zero grade in the participle.

If the verb from which a participle is formed is intransitive, it is usually convenient to translate it by an active English participle (e.g. *a-ša-an-za* 'being' : *e-eš-zi* 'he is', pl. *a-ša-an-zi*), while a participle from a transitive verb generally calls for a passive expression in English (e.g. *a-da-an-za* 'eaten' : *e-iz-za-az-zi* 'he eats', pl. *a-da-an-zi*). Although participles are formed from the stems with suffix or other modification which in IE grammar are called tense stems, the Hittite participles do not denote time. If a verb has both active and middle conjugation it is not possible to assign its participle to either voice.

A fuller discussion of the meaning of the participle will be found in the volume on syntax [2.434b, 438].

For the periphrastic conjugations based upon the participle, see [295, 296].

Here are a few illustrations of how participles are formed. *ap-pa-an-za*, gen. *ap-pa-an-da-aš*, dat. *ap-pa-an-ti* : *e-ip-zi*, pl. *ap-pa-an-zi* 'take'; acc. *ḫar-ša-na-al-la-an-da-an* *ḫar-ša-an-na-la-an-ta-an* : *ḫar-ša-na-la-an-zi* 'they wreath'; pl. *i-da-la-wa-aḫ-ḫa-an-te-eš* : *i-da-la-wa-aḫ-zi*, pret. 1 sg. *i-da-(a-)la-(u-)wa-aḫ-ḫu-un* 'injure'; *ku-na-an-za* : *ku-en-zi*, pl. *ku-na-an-zi* 'strike'; *ša-ša-an-za* : *še-eš-zi*, pl. *ša-ša-an-zi* 'sleep'; *ši-pa-an-ta-an-za* : *ši-(ip-)pa-an-ti*, pl. *ši-(ip-)pa-an-da-an-zi* 'pour a libation'. For other examples, see the paradigms of conjugation [299-320].

<sup>61</sup> Götze, *Madd.* 106-9 (1928).

<sup>62</sup> Sommer, *BoSt.* 7.14 fn. 2 (1922); Friedrich, *Elementarb.* 1.81 (1940).

<sup>63</sup> Friedrich, *ZA NF* 3.188 (1927).

112. The suffix *-anza* is used also to extend the stems of adjectives without noteworthy change of meaning;<sup>64</sup> e.g. *da-aš-šu-wa-an-za* 'strong' = *da-aš-šu-uš*.

113. More important is its use to form collectives when appended to nouns.<sup>65</sup>

*an-tu-uḫ-ša-an-na-an-za* 'people' : *an-tu-uḫ-ša-(a)-tar* 'population' : *an-tu-uḫ-ša-aš*, acc. *an-tu-uḫ-ša-an*, dat. *an-tu-uḫ-ši* 'a man'; *ud-ne-ya-an-za ud-ni-ya-an-za ud-ne-e-an-za*, acc. *ud-ni-an-da-an* 'population' : *ud-ne(-e) ud-ni-e ud-ni(-i)* 'country'; *pī(-e)-ru-na-an-za* 'rock' : dat. *pī(-e)-ru-ni*, acc. pl. *pī-e-ru-nu-uš* 'rock'. Sommer must be correct in comparing the Luwian plural suffix seen in *ku-in-zi* = Hitt. *ku(-i)e-eš*, plural of *ku-iš*. Benveniste compares also the Tocharian neuter plural suffix *-ntu*.

#### Adjectives from Genitives

114. Hittite contains remarkably few original *a* stem nouns that can be confidently connected with similar nouns in the related languages;<sup>66</sup> inherited *o*-stem adjectives can scarcely be proved to be more common, but the type was certainly productive in Hittite and in pre-Hittite. One process by which this spread of thematic adjectives occurred was the development of adjectives from adnominal genitives.<sup>67</sup> The genitive of a noun without a modifier is used freely to modify a noun in Hittite, and, since nearly all genitives end in *-aš*, such a modifier may easily be reinterpreted as nominative singular of an adjective. For instance, *ar-ru-um-ma-aš wa-a-tar* 'wash water' may readily become *ar-ru-um-ma-an wa-a-tar* by merely making the genitive singular of *ar-ru-um-mar* into a neuter adjective. Or, more simply still, *ku-ru-ra-aš an-tu-uḫ-ša-aš* 'a man of hostility' may be reinterpreted as 'hostile man' and make an accusative, *ku-ru-ra-an an-tu-uḫ-ša-an*.<sup>68</sup>

#### Denominative Nouns and Adjectives

*-laš*,<sup>69</sup> *-liš*

115. Denominatives prefer the suffixes *-laš* and *-liš* to *-raš*, just as agent nouns prefer *-tallaš* to *-taraš*. The meaning of the derivatives varies considerably. In this incomplete list I group at the end several quasi-agent nouns.

*ir-ma-la-aš* 'ill' : GIG-*aš*, acc. *ir-ma-an* 'illness'; neut. *iš-ša-al-li* 'spittle' : *a(-i)-iš*, gen. *iš-ša-aš* 'mouth'; *ka-ru-ū-i-li-iš*, neut. *ka-ru-ū-li* 'previous, ancient' : *ka-ru-ū* 'formerly'; *gi-en-zu-wa-la-aš* 'friendly' : <sup>UZZU</sup>*gi-en-zu* 'genital organs; love'; *pār-na-al-li-iš* 'of the house' : *Ē-ir*, pl. *pār-na* 'house', dat. *pār-na-aš*; dat. *tu-u-wa-li*, neut. pl. *tu-u-wa-la* 'distant' : *tu-(u)wa* 'afar'; *a-ū-ri-ya-la-aš* 'sentry' : *a-ū-ri-iš*, gen. *a-ū-ri-ya-aš* 'frontier garrison, outpost'; *ḫar-ši-ya-la-aš* 'sacrificer of *ḫar-ši-iš*'; *kat-ta-wa-na-al-li-iš* (KUB 13.7.1.15) 'avenger'<sup>70</sup> : *kat-ta-wa-tar*

<sup>64</sup> Benveniste, *Origines* 1.126 (1935).

<sup>65</sup> Götze, *Hatt.* 66 (1925); Friedrich, *Vertr.* 1.85 f. (1926); Sommer, *AU* 304 (1932) (on UKÜMEŠ-*an-za*); Benveniste, *Origines* 1.126-8 (1935).

<sup>66</sup> Sommer, *IF* 53.87 f. (1935).

<sup>67</sup> Sturtevant, *TAPA* 71.373-8 (1940), and references.

<sup>68</sup> With this should be compared the Luwian possessive adjective in nom. sg. *-šaš* or *-šiš* and the Lycian declined genitive *-ahi* from the form preserved in Milyan *-asi*.

<sup>69</sup> Ernst Tenner, *Mursiliš II* 24 (Leipzig, 1926); Friedrich, *Elementarb.* 1.13 (1940).

<sup>70</sup> Sommer, *Bil.* 51 and fn. 3 (1938).

'vengeance'; *da-a-wa-la-la-aš* 'sacrificer of *ta-a-(u)wa-al*'; *wa-al-aḫ-ḫi-ya-la-aš* 'sacrificer of *wa-al-ḫi*'; *iš-pa-an-tu-uz-zi-ya-li-e-eš* 'libation pourers'; *iš-pa-an-tu-uz-zi* 'ladle, libation'.

#### Adverbs in *-li*

**116.** The adverbial suffix *-li* is, in origin, dative of adjectives in *-laš* or *-liš*. Apparently the vowel *-i-* was, to some extent, generalized before the adverbial ending. Examples are: *ḫa-a-ra-ni-li* 'of the eagle': *ḫa-a-ra-as*, *ḫa-a-ra-na-aš*; *ka-ru-uš-ši-ya-an-ti-li* 'quietly, without music': *ka-ru-uš-ši-ya-an-zi* 'they are quiet'; *Ḫa-at-ti-i-li* 'in Hattic'; *Lu-ú-i-li* UR.BAR.RA-*i-li*<sup>71</sup> 'in Luwian'; *Na-a-ši-li* = *Ne-šu-um-ni-li* 'in the language of Nesas'; *pít-te-an-ti-li* (KUB 23.77.72 f.) 'in the manner of a fugitive': pl. *pít-te-ya-an-te-eš* 'fugitives'.

*-raš*, *-riš*<sup>72</sup>

**117.** The suffix occurs in <sup>LÚ</sup>*ḫal-li-ya-ri-aš* (KUB 2.5.2.5), pl. <sup>LÚ.MEŠ</sup>*ḫal-li-ya-ri-(e)-eš*: *ḫa-li-ya-zi*, pret. *ḫa-li-ya-at*, pl. *ḫa-a-li-i-e-ir* 'bow down, worship'; *kat-te-(ir-)ra-aš* 'lower, inferior': *kat-ta* 'down' (cf. Lat. *superus*, *inferus*, etc.).

The composite verbal suffix of *gi-im-ma-an-ta-ri-ya-nu-un* 'I passed the winter': *gi-im-ma-an-za*, gen. *gi-im-ma-an-ta-aš* 'winter' implies an adjective *\*gimmantari-* 'hibernus'. Just so the verb *ša-ku-wa-an-ta-ri-ya-zi*, pl. *ša-ku-wa-an-ta-ri-ya-an-zi* 'rest, be idle': pret. *ša-ku-wa-a-it*, durat. *ša-ku-u-eš-ki-iz-zi* 'cause to rest' implies an adjective *\*sakuwantari-* 'at rest'. *u-ša-an-ta-ri-iš* *u-ša-an-da-ri-iš*, acc. *u-ša-an-ta-ri-in* 'fertile' (of a cow or a woman) appears to be a derivative from a participle *\*ušant-*, but no verb with the required meaning is known.

*-šḫaš*<sup>73</sup>

**118.** The suffix *-šḫaš* is not infrequent, but a majority of the words that contain it are of unknown meaning and etymology. Reasonably clear are: acc. *ḫa-me-eš-ḫa-an*, gen. *ḫa-me-eš-ḫa-aš*, dat. *ḫa-me-eš-ḫi* 'spring' or 'summer': ἀμῶν 'reap';<sup>74</sup> *tar-ri-ya-aš-ḫa-aš* (KUB 24.3.1.48) 'weariness': pret. *da-ri-ya-at*, pl. *ta-ri-ya-u-en* 'take pains, grow weary'; <sup>EZEN</sup>*nu-un-tar-(ri-)ya-aš-ḫa-aš*, a festival in which the king visits the principal cult cities: gen. *nu-(un-)ta-ra-aš* 'speed', *nu-un-tar-nu-ši* 'you hasten'.

*-wanza*, *manza*<sup>75</sup>

**119.** The IE possessive suffixes *-went-* and *-ment-* appear in Hittite with the vowel *-a-* generalized. *-wanza*, with *-w-* often written twice, follows any stem final except *-u-*. I can find *-manza* only in *ne-ku-ma-an-za ni-ku-ma-an-za*, dat. *ne-ku-ma-an-ti* 'naked', on which see [81].

<sup>71</sup> Sumerian UR.BAR.RA means 'wolf'; cf. λύκος : Λύκιος 'Lycian'.

<sup>72</sup> Sturtevant, JAOS 56.282-4 (1936); Goetze, Tunn. 75 (1938).

<sup>73</sup> Götze, KIF 1.178 f. (1930).

<sup>74</sup> IHL 40 (1942).

<sup>75</sup> Götze, NBr. 34 f. (1930), interprets these words as participles of denominative verbs, and this is probably true of some words in his list; the decision must be made in each case upon the basis of the form and meaning of the related words. Cf. Sommer, AU 62 and fn. 1 (1932).

nom. pl. *ar-pu-wa-an-te-eš* 'unlucky' : acc. *ar-pa-an* 'bad luck'; *kar-dam-mi-ya-u-(wa-)an-za* *kar-tim-mi-ya-a-wa-an-za* 'angry' : *kar-tim-mi-(ya-)az* 'anger', *kar-tim-mi-ya-nu-un* 'I was angry'; pl. *ki-iš-du-wa-an-te-eš*, acc. *ki-iš-du-wa-a-an-du-uš* 'hunger' : *ka-a-aš-za*, acc. *ka-aš-ta-an* 'hunger'.

-umnaš<sup>76</sup>

120. The suffix *-umnaš*, which forms ethnica, may or may not belong to the inherited material of the Hittite language; the preservation of *-mn-* [67] is perhaps an indication of recent borrowing. It is combined only with proper names, except for *ku-en-zu-um-na-aš* 'cuiaš'.<sup>77</sup>

## DECLENSION

### Stem Classes

121. The IE *ā*-stems come from IH neuters in final *-ex* or *-eh*.<sup>78</sup> The former group lie at the base of the Hittite denominative verbs in *-aḫḫ-*, such as *i-da-la-wa-aḫ-zi*, pret. 1 sg. *i-da-(a)la-wa-aḫ-ḫu-un* 'injure' : *i-da-(a)lu-uš* 'bad'; pret. 1 sg. *ne-wa-aḫ-ḫu-un*, pl. *ne-wa-aḫ-ḫi-ir* 'renew' : inst. *ne-e-u-it* 'new' beside *νῆαν* : *νέος* 'new', Lat. *novāre* : *novus*; *ša-ra-a-az-zi-ya-aḫ-te-ni* 'you elevate' : *ša-ra-az-zi-iš* 'upper'; pres. 3 sg. *šu-up-pi-(ya)-aḫ-ḫi*, 1 sg. *šu-up-pi-ya-aḫ-mi* 'make clean'. The few Hittite nouns in suffix *-aḫḫ-* (*al-wa-an-za-aḫ-ḫa-az*—VBoT 120.3.4—'from witchcraft'; *ma-ni-in-ku-wa-aḫ-ḫi*—KUB 24.9.2.18—'in the neighborhood'; *še-e-na-aḫ-ḫa-aš*, acc. *ši-na-aḫ-ḫa-an* 'substitution(?), ambushade' : *še-e-na-aš* 'figure') may all belong to the *a*-declension, as the last word cited must do; but the denominative verbs listed above are clearly non-thematic. The IH nouns in final *-x*, then, were neuter consonant stems, and the IE words in final *-ā* with factitive value (e.g. *ναύτης* 'sailor', *ποιητής* 'maker, poet', Lat. *scriba* 'writer', *agricola* 'farmer', *profuga* 'fugitive') represent a secondary development in form outside of the nominative singular, which in most languages has no case ending *-s*.

The IH collectives in *-eh* gave rise to the neuter plurals in IE *-ā* and Hitt. *-a*. Other long vowel endings in IE neuters, such as Ved. *trī*, Lat. *trigintā* 'three tens = thirty', Ved. *çuct* 'pura', *bhūrī* 'wealthy', *purū* 'multa', owe their long quantity to the same collective suffix *-h*, and it should probably be assumed also for Hittite neuters plural like *me-ik-ki* 'multa' and *i-da-a-lu* 'mala', although these forms are not distinguishable in form from neuters singular.

Several scholars, building upon J. Schmidt's familiar doctrine that the IE neuter plurals in *-ā* were once feminine singulars, have seen in Hittite neuter plurals in *-a* traces of original feminine singular stems in *-ā*; but the above explanation certainly fits the laryngeal theory better.

There is, then, no reason to assume that Hittite preserves any traces of *ā*-stems. IH and IE *o*-stems appear in Hittite as *a*-stems. Curiously few of these words correspond with particular *o*-stems of the IE languages, cf. [187].

<sup>76</sup> Friedrich, Vertr. 2.152 (1930); Götze, ZA NF 6.260-3 (1931); Sommer, Heth. u. Heth. 85 f. (1947).

<sup>77</sup> Cf. Sommer, Bil. 169 f. (1938).

<sup>78</sup> Sturtevant, Lang. 14.239-47 (1938), 24.259-61 (1948), IHL 39, 44 (1942).

Examples are: *iš-ḫa-(a)-aš* : Lat. *erūs* 'master'; *ḫu-uḫ-ḫa-aš* : Lat. *avūs* 'grandfather'; *pí-e-da-an* 'place' : *πέδον* 'ground'; *i-ú-ga-an i-ú-kán* 'yoke' : *ζυγόν*, Skt. *yugam*, Lat. *iugum*.

**122.** The Hittite nouns in *-i-* and in *-u-* are easily recognizable as corresponding in general to the IE *i*-stems and *u*-stems. There is good reason to believe that some of the IE nouns in *-i-* and *-ū-* owe their final quantity to original laryngeal suffixes, and these same suffixes must have existed in proto-IH. The suffix *-x* must probably be assumed as lying at the basis of the adjective *an-na-nu-uḫ-ḫa-an* (acc.) 'of training' in paragraphs 65 and 119 of the Law Code. That is, we must apparently assume a verbal abstract *\*an-na-nu-uḫ* 'training' from *an-na-nu-* 'cause to perform, train'.<sup>79</sup> The collective suffix *-h* was lost in Hittite, and so we find in Hittite neuters plural only final *-i* or *-u* corresponding to IE final *-ī* or *-ū* from IH *-ih* or *-uh*. Hittite possesses also one stem in *ḫ* of unknown etymology, *iš-ga-ru-uḫ*, dat. *iš-ga-ru-ḫi*, a kind of vessel [164].

**123.** Hittite has several masculines with nominative in *-aš* and with *n*-stem in the oblique cases; e.g. *me-mi-(ya)-aš*, acc. *me-mi-(ya)-an*, gen. *me-mi-ya-na-aš* 'word'; *ḫa-a-ra-aš*, acc. *ḫa-a-ra-na-an*, gen. *ḫa-(a)-ra-na-aš* 'eagle'.<sup>80</sup> The *-n* of the oblique case forms reminds one of Lat. *sermō*, *-ōnis*,<sup>81</sup> etc.

**124.** Masculine consonant stems are chiefly confined to those with stems in *-t* and *-nt* [165].

**125.** Hittite has far more neuter nouns in *-r/n-* than any of the IE languages. A typical example is *wa-a-tar* 'water', gen. *ú-e-te-na-aš ú-e-it-na-aš*, dat. *ú-e-te-ni ú-i-te-e-ni*. This pair of stem finals functions in several Hittite suffixes [96, 98, 100]. There are also neuter noun stems in final *r* and in final *-n*.

#### Gender<sup>82</sup>

**126.** Hittite nouns, adjectives, and pronouns present two genders, one corresponding to the IE masculine and feminine, and the other to the IE neuter. The striking difference from the IE system is the lack of the feminine gender, and we may emphasize this fact by naming the Hittite genders *masculine* and *neuter*. Since *masculine* is familiar in a strictly grammatical sense, this will cause no difficulty; it is certainly better than either *animate* or *personal* for such words as *(a)-a-ru-na-aš* 'sea', *za-aḫ-ḫa-(a)-iš* 'fight'. The lack of the feminine gender in Hittite harmonizes with the incomplete development of that gender in Proto-IE.

As in the Indo-European languages the distinction between masculine and neuter is confined to nominative and accusative; only masculines have a special form for the nominative. Neuters have no ending in the nominative singular except that *a*-stems show the ending *-n* in the nominative as well as in the accusative. Nouns sometimes give rise to adjectives by way of a declined genitive [114]. Such adjectives differ in form from the nouns only in the nominative and accusative and sometimes the nominative singular of the noun is used as an

<sup>79</sup> Sturtevant, Lang. 14.242 (1938).

<sup>80</sup> Mudge, Lang. 7.252 (1931).

<sup>81</sup> Pedersen, Hitt. u. IE 41 f. (1938).

<sup>82</sup> Hrozný, SH 6-8 (1917); Friedrich, ZDMG 76.159 f. (1922); Antoine Meillet, BSL 32.1-28 (1931).

adjective; so *ták-šu-(ú-)ul* 'friendship; friendly'; *ku-u-ru-ur* 'hostility; hostile'; *kal-la-ar* 'badness; bad'.

### Number

**127.** The Hittite plural declension shows certain deficiencies and irregularities as against the singular declension, and these led me to follow in the first edition of this book certain suggestions that had recently been published by the late Walter Petersen.<sup>83</sup> I have since had my attention called to serious difficulties with the treatment of plural declension proposed in 1933.

It now appears to me certain that the prevailing declension of masculine plurals belongs originally to the consonant stems; nom. *ḫu-u-ma-an-te-eš* 'omnēs': *πόδες*, Skt. *pādas* 'feet'; acc. *ḫu-u-ma-an-du-uš*: *πόδας*, Skt. *padas*, Lat. *pedēs* < IE *pe/odṇs* [165, 167]. The genitive-dative plural in *-aš* (*ḫu-u-ma-an-da-aš*) is probably traceable mainly to the genitive singular and the accusative plural (e.g. *ḫu-u-ma-an-da-aš* 'omnes' may represent an IH accusative plural in *-bns*).<sup>84</sup>

**127a.** Singular nouns frequently stand with numerals in plural value and occasionally singular forms of the ablative or instrumental occur in plural sense. There are certain unusual forms of *r*-stems that seem to have been used as plurals, but it is difficult to infer a plausible phonetic interpretation of these forms other than the customary interpretation of the singular. Examples are *ú-wi-ta-ar* and *ú-i-da-a-ar* beside *wa-a-tar* 'water'; *ud-da-a-ar* beside *ut-tar* 'thing, word'. *me-ik-ki*, *i-da-a-lu*, may be used as neuter singular or neuter plural indifferently, and it seems probable that in the latter sense they had the IH collective suffix *-h* [122] and that they correspond to IE plurals in *-ī* and *-ū*, respectively.

**127b.** Hittite seems to retain a few traces of IH nominative-accusative dual.<sup>85</sup> The clearest instance is the phrase *ḫa-aš-ša ḫa-an-za-aš-ša*<sup>86</sup> 'grandchild (and) great-grandchild, descendant', which has this form in accusative as well as in nominative use. It may be compared with the Ved. "*devatā*"-dvandvas (*Mitrā-Varuṇā* 'Mitra and Varuṇa', etc.);<sup>87</sup> perhaps more significant is the similarity of the IE elliptical dual (Skt. *Mitrā* 'Mitra and Varuṇa'; Hom. *Αἰαντε*, etc.). Outside the nominative-accusative, our phrase may have singular declension (*ḫa-a-aš-ši ḫa-an-za-aš-ši*, *ḫa-aš-še-it ḫa-an-za-aš-ši-it*). Regular plural forms also occur (*ḫa-aš-šu-uš ḫa-an-za-aš-šu-uš*, *ḫa-aš-ša-aš ḫa-an-za-aš-ša-aš*). Note also *ḫu-uḫ-ḫa ḫa-an-ni-iš* 'grandfathers (and) grandmothers' (KUB 17.29.2.6). Perhaps the occasional *at-ta* (KBo. 3.7.3.21) for *at-ta-aš* and *an-na* (KBo. 6.26.2.3) for *an-na-aš* also are old dual forms; cf. [89].

*ud-ne(-e) ud-ni(-i) ud-ni(-e)* 'country' may be an old dual, IH *wd'ne* 'breasts'; cf. Hom. *οἰδαρ ἀποῦρης*, Vergil *ūber arvī*, Cicero *ūbertās agrōrum*. Possibly the preservation of *-dn-* (for *-nn-*) marks the word as Luwian; cf. [98, 99].

<sup>83</sup> Hittite and Indo-European Nominal Plural Declension, AJP 51.251-72 (1930).

<sup>84</sup> The comparison of Hitt. *-aš* with Skt. dual *-os*, Av. *d* (Benveniste, BSL 34.27-1933; Pedersen, Hitt. u. IE 33-1938) is improbable, since this would appear in Hittite as *-uš*.

<sup>85</sup> Otherwise Sommer, Heth. u. Heth. 49-51 (1947).

<sup>86</sup> Friedrich, Vertr. 2.36 f. (1930).

<sup>87</sup> Edgerton, KZ 43.110-20 (1910), 44.23-5 (1911).

## The Cases

**128.** Hittite has six well-developed cases, nominative, accusative, genitive, dative, ablative, and instrumental. The nominative functions also as a vocative.<sup>88</sup> There is an additional form of the dative, especially in early texts, which ends in *-a* and frequently denotes end of motion.<sup>89</sup>

The fact that this is the regular ending of infinitives in *-anna* from *-at-na*, cognate with Latin gerunds in *-undō*, *-endō*, *-andō* (note Hitt. *da-an-na* 'to take' beside Lat. *dandō* 'for giving'),<sup>90</sup> makes it virtually certain that H. Pedersen is correct in comparing the Hittite ending *-a* with Lat. *-ō*, Gk. *-ω*, Av. *-ōi*, Skt. *-āya*. This is usually regarded as the dative ending of *ō*-stems, but its prevalence in certain forms of the *r/n* declension (Hitt. *da-an-na* : Lat. *dandō*) and its occurring in all stem classes in Hittite may indicate a wider original distribution.

## Nominative Singular Masculine

**129.** The nominative singular masculine ends in *s*, whatever the stem. For probable traces of the nominative-accusative dual, see [127b]. Neuter nouns used as adjectives usually retain their neuter form in the nominative singular. The noun in the phrase *Ū-UL a-a-ra* 'it is not right' may be, not a nominative, but a dative in origin.

*ki-eš-šar* beside *ki-eš-ši-ra-aš* 'hand' is sometimes used as accusative (e.g. KBo. 3.16.2.7), and so it must be a neuter.

**129a.** The nominative singular masculine of the *a*-stems (e.g. *at-ta-aš* 'father', *ḫu-uḫ-ḫa-aš* 'grandfather' : Lat. *avos*) shows *-aš* from IH *-os*.

**129b.** The *i*-stems show two distinct forms of the nominative singular masculine. Most familiar is the final *-iš* of *ḫal-ki-iš* 'grain', *ki-iš-ri-iš* 'glove', etc., corresponding to the ending of Skt. *agnis*, *πῶλις*, Lat. *ignis*. The second type shows *s* appended to a diphthong, e.g. *wa-aš-ta-(i)-iš* 'injury', *za-aḫ-ḫa-(a)-iš* 'fight'. These diphthongs, I think, represent IH *-ēy-* or *-ōy-*, with lengthened grade of the stem vowel. Cf. Skt. *sakhā* (acc. *sakhāyam*) 'friend', Lat. *nūbēs* 'cloud'.<sup>91</sup> As in related languages, lengthened grade in the nominative singular is confined to nouns. Spellings such as *ki-iš-ri-eš* for *ki-iš-ri-iš*, like the

<sup>88</sup> Güterbock, JAOS 65.248-57 (1945), has published an elaborate study of personal names and certain epithets in Hittite texts, as used in direct address, and he reaches the conclusion that the stem form of these words is frequently used as a vocative and that *u*-stems possess also a vocative in *-e* (or *-i*). The vocative in *-a* from *a*-stem nouns can scarcely be connected with the Latin and Greek vocatives in *-e*; and *u*-stem vocatives in *-e* or *-i* are even more difficult to combine with the facts of IE grammar. After all, scarcely any Hittite proper names belong to the inherited linguistic stock; it would be foolish to try to learn Hittite inflection from them. The rare vocatives in *-e* or *-i* from *u*-stem common nouns probably belong somehow with old datives. See also Hahn, JAOS 70.236-8 (1950).

<sup>89</sup> Sommer, BoSt. 10.67 (1924); Forrer, Altorient. Stud. 1.30-5 (1928); Sturtevant, Lang. 5.139-46 (1929); Pedersen, Hitt. u. IE 27 f. (1938); Sommer, Heth. u. Heth. 46 f. (1947).

<sup>90</sup> Sturtevant, Hittite Verbal Nouns in *-tar* and the Latin Gerund, Lang. 20.206-11 (1944).

<sup>91</sup> Sturtevant, Mél. Pedersen 57-62 (1937).



more frequent accusative forms like *ḥa-li-en* 'enclosure' for *ḥa-li-in*, merely reflect the identical value of the signs *iš* and *eš*, *in* and *en* at the time when our texts were written [40].

The rare nominative and accusative forms such as *ḥa-an-te-iz-zi-ya-aš* and *ḥa-an-te-iz-zi-ya-an* are analogical creations from the genitive on the basis of the *a*-stems (cf. [114]); since in the *a*-stems genitive singular and nominative singular masculine were alike, there was a tendency for the genitive singular of other adjectives to be used as nominative singular masculine.

**129c.** The *u*-stems show two forms of the nominative singular masculine: with final *-uš* and with final *-a-uš*. The first type appears in several nouns and in many adjectives, e.g. *pa-an-ku-uš* 'whole; senate', *i-da-(a-)lu-uš* 'bad'; this is a common nominative form in the related languages (ḡdūs, Skt. *svādus* 'sweet', Goth. *sunus* 'son').

As far as I know, there is only one Hittite word with *-a-uš* in the nominative singular masculine: *ḥar-na-a-uš* 'birth chair'. With this one may compare Av. *ugra-bāzāuš* 'strong-armed' and OP *dahyāus* 'province'.

**129d.** With the exception of *ḥa-a-aš*, acc. *ḥa-aš-ša-an* 'soap', and the *n*-stems mentioned in [123], the only consonant-stem masculines yet recognized are dental stems. These all have the case ending *-s*, which combines with the stem final to form *-z* (*a-ni-ya-az*, acc. *a-ni-ya-at-ta-an* 'performance'; *ku-ú-uz-za*, dat. *ku-ut-ti* 'wall, side'; *ḥu-u-ma-an-za*, acc. *ḥu-u-ma-an-da-an* 'whole, all').

#### Accusative Singular Masculine

**130.** The accusative singular masculine of the *a*-stems ends in *-an* reflecting IH *-om*.

The accusative singular masculine of the *i*-stems and the *u*-stems ends in *-in* and *-un*, respectively, reflecting IH *-ym* and *-wm*. A number of *i*-stem nouns show accusative singular in *-a-in*. For acc. sg. *ḥa-an-te-iz-zi-ya-an*, see [114].

The consonant-stem masculines always have accusative singular in *-an* from IH *-bm* [63a]; perhaps the *a*-stem accusatives had some influence in leveling out *-un* from IH syllabic *-m*.

#### Neuter Singular

**131.** The regular ending of neuter *a*-stem nouns in nominative-accusative neuter is *-an* (*pí-e-da-an* 'place': πῆδον; *tu-ik-kam-ma-an* (KUB 30.10.1.14) 'my body, self'; *i-ú-kan i-ú-ga-an* 'yoke': ζυγόν, Lat. *iugum*). Friedrich<sup>93</sup> collects a number of neuter *a*-stem adjectives without the final *-n* in nominative-accusative. Since there are also such forms as *dan-na-at-ta-an* (KUB 1.1.2.12) 'empty' and *ZAG-an* (KUB 8.6.1.1, 5) 'dextrum', the occasional lack of the *n* is no more than a spead of the type of declension seen in *šu-up-pí*, neuter of *šu-up-pí-iš* 'pure', and *i-da-(a-)lu*, neuter of *i-da-(a-)lu-uš* 'bad'.

We must note also diphthongal neuter *i*-stems and *u*-stems such as *ḥa-aš-ta-(a-i)i ḥa-aš-da-a-i*, gen. *ḥa-aš-ti-ya-aš* 'bone, strength': Skt. *asthi*, ὀστέον 'bone';

<sup>93</sup> Vertr. 1.78 (1926).



*ú-wa-(a-)i* 'invidia';<sup>94</sup> *ši-i-iš-ḫa-u* 'sweat';<sup>95</sup> *ḫar-na-a-ú* accusative beside nom. *har-na-(a-)uš* 'birth chair'.

Other neuters employ the bare stem in nominative-accusative singular; *wa-a-tar* 'water' beside gen. *ú-i-te-na-aš* preserves the ablaut of the radical syllable. The variant *ú-i-da-a-ar* must be due to analogical creation; it seems to mean 'waters'.

For the nom. sg. *ut-ne*, see [127b].

### Genitive Singular

**132.** The genitive singular normally ends in *-aš*, whatever the stem final may be. There are a few genitives in *-uš* from *u*-stems (LUGAL-*uš* = *ḫa-aš-šu-uš* 'régis'; *pa-an-ku-uš* 'senātūs';<sup>96</sup> *wa-ap-pu-uš* 'of the river bank').<sup>97</sup> This type of genitive singular is like Latin *u*-stem genitives in *-ūs* from IE *-eus* and such Sanskrit genitives as *çatros* from nom. *çatrus* 'enemy'. The corresponding IH ending was *-ews*. The genitive singular of dental stems normally ends in *-aš* (*ḫu-u-ma-an-da-aš*), but there are a few genitives like *ne-ku-uz* 'of evening'.<sup>98</sup>

**132a.** The genitive singular of the *a*-stems ends in *-aš* (*at-ta-aš* 'of a father', *ḫu-uḫ-ḫa-aš* 'of a grandfather'). H. Pedersen<sup>99</sup> suggests that the ending may have been taken from the consonant stems or that it may be the original form of the *o*-stem genitives. The lack of agreement at this point among the Indo-European languages suggests various innovations when the inherited identity of nominative and genitive singular of the *o*-stem masculines became more inconvenient as this declension type became more and more common. That the *o*-declension tended to spread in all the historical Indo-European languages is well known. A similar course of development is clear in Hittite [114], and it must have started in IH.

**132b.** The *i*-stem and *u*-stem genitives like *tu-uz-zi-ya-aš* from *tu-uz-zi-iš* 'army' and *wa-ap-pu-(u-wa)-aš* *wa-ap-pu-ú-wa-aš* 'of the river bank' beside acc. sg. *wa-ap-pu-un* (BO 635.1.10) correspond to Ved. *avyas*, *pitvas*, and *πόλιος*. The *u*-stem genitives like *(a)-aš-ša-u-wa-aš* from *a-aš-šu-uš* 'good' must contain lengthened *o*-grade of the stem vowel. Since pre-Hitt. *-aya-* would become *-a-* [61a], we should expect genitives in *-aš* from the *i*-stems, and two such are citable: *šal-la-aš* (KBo. 3.1.2.31), *šu-up-pa-aš* (KBo. 4.9.1.17). For analogically restored *-ayaš-* I can cite *li-in-ga-ya-aš* (KBo. 4.4.4.60, 68; KUB 14.17.2.13) and *šu-up-pa-ya-aš* (KUB 20.88.6.15). Even in words that tend to use the lengthened grade of the stem vowel, genitives like *li-en-ki-ya-aš* are much more common.

**132c.** The consonant stem genitive singular ending *-aš* corresponds to Gk. *-os* and early Lat. *-us* (*nōminus*, *Caesarus*). Gen. *ne-ku-uz* shows zero grade of the

<sup>94</sup> Sturtevant-Bechtel, Chrest. 89 (1935); Duchesne-Guillemin, É H 39 (1946).

<sup>95</sup> Potratz, Das Pferd in der Frühzeit 208 (1938).

<sup>96</sup> Sommer, BoSt. 7.17 f. (1922).

<sup>97</sup> Goetze, Tunn. 55 fn. 172 (1938).

<sup>98</sup> Sommer, BoSt. 7.32-6 (1922).

<sup>99</sup> Hitt. u. IE 26 (1933), and references.

case ending. Gen. *ne-pi-aš* = *ne-pi-ša-aš* 'of the sky' seems to be a transfer of this s-stem noun to the i-declension.

**132d.** For the genitive singular of action nouns in *-war* and *-mar*, see [101].

#### Dative Singular

**133a.** The dative singular of *a*-stems in *-i* or *-e*—e.g. *iš-ḫi(-i)*, *eš-ḫe* (KBo. 3.34.1.25) 'erō'; *pi-di pi-e-di*, *pi-e-di-eš-ši* (KUB 17.28.2.48) *pi-e-te-ši* (KBo. 4.9.1.49) 'in (his) place'—corresponds to the IE locative in *ei/oi*. A few *a*-stem datives end in *-ai*: *ḫa-mi-na-a-i* (KUB 10.13.3.7), *ḫar-ḫa-ra-i* (KUB 11.34.1.6), *ḫa-ar-ḫa-ra-a-e* (KUB 10.60.4), *ḫa-aš-ša-an-na-i* (KBo. 3.1.2.49), *la-ba-ar-na-i* (KUB 2.2.3.9). More frequent is the ending *-a*, as in *a-ru-na*, *a-aš-ka*, *ḫa-an-ti-ya-ra*, *ḫa-aš-ša-an-na*, *iš-ki-ša*, *gi-im-ra*, *la-aḫ-ḫa*, *šar-di-ya*, *šu-uh-ḫa*, *tu-li-ya*. Perhaps the datives in *-a* and in *-ai* are two sandhi-forms of IH *-ōy* (cf. *-φ*, Lat. *-ō*, etc.). H. Pedersen<sup>100</sup> derives the Hittite datives in *-a* from *-ōy* and thinks of the *-i* as an appended ending or particle. A fourth type of dative singular from *a*-stems ends in *-iya* (*a-ri-ya*, *ši-ip-ta-mi-ya*); this may be borrowed from the *i*-stems.

**133b.** The *i*-stems form their datives in *-i*, *-ai*, *-iya*, or *-aya*. The first type is confined to adjectives and neuter substantives (*ḫa-an-te-iz-zi* from *ḫa-an-te-iz-zi-iš* 'first'; *e-eš-ri-eš-ši*—KBo. 3.7.3.20—'in his form' from *e-eš-(ša-)ri* 'form, picture'). Probably it corresponds to the dat. *πόλῃ*, but it may be borrowed from the consonant stems. (The occasional writing of *-e* in these datives—as above—probably comes from the *a*-stems.) The second type (*šu-up-pa-i* from *šu-up-pi-iš* 'clean'; *lu-ut-ta-i* 'in the window') evidently represents the IH dative in *-ēy*, whence the IE locative that is seen in Goth. *anstai* from *anst* 'grace' and that is implied by the Sanskrit locative in *-au* (*agnau* 'in the fire'). The third type (*tu-uz-zi-ya* from *tu-uz-zi-iš* 'army') consists of *tu-(uz-)zi* and the postposition that is appended to various case forms in the Indo-European languages; e.g. Skt. dat. *asurāya* = Av. *ahurāi*, Av. loc. *gātava* from *gātu-* 'place' beside *haetō* 'at the bridge', Av. loc. pl. *raodaēšva* from *raoda-* 'outward appearance' beside loc. pl. *aspaēšu* from *aspa-* 'horse', OCS loc. *kamene* from *kamy* 'stone', Lith. loc. *rañkoje* from *rankà* 'hand'.<sup>101</sup> The fourth type (*šu-up-pa-ya* from *šu-up-pi-iš* 'clean') appears to consist of the second type (*šu-up-pa-i*) with the postposition *-a*; but pre-Hitt. *-aya* should become *-a*, and I can cite *ḫa-tu-ga* (KBo. 3.21.2.24) beside *ḫa-tu-ga-ya* from *ḫa-tu-ki-* 'frightful, terrible', as well as *šu-up-pa* (KUB 14.10.4.13). Hence *šu-up-pa-ya*, like gen. *li-en-ka-ya-aš*, is an analogical restoration.

**133c.** The dative singular of the *u*-stems generally ends in *-uwi* or *-awi*. The former, as in *wa-ap-pu-(ū-)i* beside acc. *wa-ap-pu-un* 'river bank' and *aš-šu-ū-i* from *a-aš-šu-uš* 'good', corresponds to the *u*-stem genitive singular like *wa-ap-pu-(u-wa)-aš* [132b]. It is to be compared with Skt. dat. *çiṣve* 'child' from *çiṣus*. The latter, as in *ḫar-na-a-ū-i* from *ḫar-na-a-(ū-)uš* 'birth chair' and *aš-ša-u-i* from *a-aš-šu-uš* 'good', and also the variant *pa-an-ga-u-e* 'senatui'

<sup>100</sup> Hitt. u. IE 28 (1938).

<sup>101</sup> Brugmann, Grundr. 2.2.185 f. (1911).

(KUB 25.36.2.10, 14), is an analogical creation on the model of the gen. (a-)aš-ša-u-wa-aš. Besides we find a few instances of datives in -au and -u; ḥar-na-a-ú (KBo. 5.1.1.26) corresponds to the IE locative in -ēu (Skt. *çatrau*, Goth. *sunau*), and *gi-nu* (KUB 14.15.2.6) from <sup>U</sup>ZU *gi-e-nu* 'knee' is comparable to Skt. *sāno* 'at the top' and Av. *haētō* 'at the bridge'.

**133d.** Neuter consonant stems generally form datives in final -i. The stem final is often full grade, as it should be with zero grade ending; *pa-aḥ-ḥu-e-ni* 'in the fire', *ú-i-te(-e)-ni* 'in the water', *ne-pí-ši* 'in the sky'. But it is sometimes zero grade, as it should be with ending -e from IH -ey; *pa-aḥ-ḥu-ni* (KBo. 2.9.4.20), *pa-ap-ra-an-ni* (< -at-ni) from *pa-ap-ra(-a)-tar*. It is therefore not surprising to meet occasional spellings like *ú-i-da-an-da-an-ni-eš-ši* 'to his years' (KUB 26.71.1.10) and *na-ak-ki-ya-an-ni-eš-ši* (KBo. 3.17.1.14) 'to his importance'.

**133e.** The ending -a, specialized in early texts for the end of motion construction, was discussed above [133a, b]. It was also particularly common in the dative of r/n-stems, especially to form infinitives; examples are: *a-da(-a)-an-na* 'to eat', *a-ku(-wa)-an-na* 'to drink', *(a)-ap-pa-an-na* 'to take', *ḥar-ga-an-na* 'to be destroyed', *ku-na-an-na* 'to strike', *pí-ya-an-na* 'to give', *da-an-na* 'to take', *wa-aḥ-ḥa-an-na* 'to turn'. Although these forms remain in common use, the type seems to be relatively archaic. Probably quite as numerous are the datives of r/n-stems in -i; e.g. *da(-a)-la(-a-u)-wa-an-ni i-da-la-u-an-ni* HUL-u-an-ni from \**i-da-a-la-u-wa-tar* 'injury'. Some of these seem to have a peculiarly close relationship with verbs, e.g. *ma-ni-ya-aḥ-ḥa-an-ni* 'to govern, for government' beside *ma-a-ni-ya-aḥ-mi*, *ma-ni-ya-aḥ-ti*, *ma-ni-ya-aḥ-zi*, *ma-ni-ya-aḥ-ḥa-an-zi* 'govern'; *pí-ya-ni* (KBo. 3.1.2.60) beside *pí-ya-an-na* 'to give, for giving'.

#### Ablative Singular

**134.** The Hittite ablative singular ends in -z [ts], which is the zero grade of the adverbial suffix -tos (Skt. *mukhatas* 'from the mouth', Lat. *funditus* 'from the bottom', *ἐκτός* 'outside').<sup>102</sup> Examples are: *a-ru-na-az* 'from the sea', *a-aš-ka-az a-aš-ka-za* 'from the gate', *ḥa-an-te-iz-zi-az*, *lu-ut-ti-ya-az*, *šu-up-pa(-ya)-az*, *a-aš-šu-wa-az a-aš-šu-u-wa-az*, *ḥu-u-up-pa-ra-za*, *ḥi-in-ga-na-az ḥi-in-ga-na-za*, *tak-na(-a)-az*, *ú-e-te-na-az*, *ud-da(-a)-na-az*, *pa-aḥ-ḥu-na-az*, *še-ḥu-un-za*,<sup>103</sup> *pa-ap-ra-an-na-az*, *ḥa-aš-ša-an-na-an-za*,<sup>103</sup> *ḥa-an-ne-eš-na-az ḥa-an-ni-iš-na-an-za*,<sup>103</sup> *ne-pí-ša-az ne-pí-ša-an-za*.<sup>103</sup> In pre-IH, final -ts lost -s before words beginning

<sup>102</sup> Sturtevant, Lang. 8.1-10 (1932); Pedersen, Hitt. u. IE 22-26 (1938); Sturtevant, IHL 25 (1942). Cf. Bernhard Rosenkranz, KZ 60.290 f. (1933).

<sup>103</sup> Sommer, Heth. u. Heth. 47 (1947), mentions the Hemmungen, die das von alters her neben -z stehende -nz (z. B. *nepisanz* "vom Himmel") bereitet; Herleitung von dessen -n- aus den n-Stämmen wäre eine Hypothese ad hoc. One wonders how the problem would be helped by assuming any other origin for ablative -z than the reduced grade of -tos. Furthermore, it is noteworthy that -nz is particularly common in n-stems, just as -ni is most common in the instrumental of n-stems (e.g. *ú-e-da-an-da* 'by water'—KUB 13.4.3.47). Does Sommer question the current tracing to n-stems of n in the Sanskrit neuters plural (e.g. *trivṛti* from *trivṛt* 'threefold') as being ad hoc? Familiar etymologies have a great advantage! Cf. Götze, KLf 1.192 (1930).

with *s*- [88]. The remainder of the suffix appears in IE *o*-stem ablatives (Skt. *devāt*, OLat. *dōnōd*). Under other sandhi conditions, final *-ts* remained in Hittite and in proto-IE. In various Indo-European languages it yielded *-s* (e.g. *oṽrws* from IE *-ōts* beside *oṽrω* from IE *-ōt*). In Hittite we have final *-ts* preserved both in the ablative and in the nominative singular of masculine dental stems [129d].

**135.** The identity of genitive and ablative in all IE nouns except *o*-stems would lead one to expect a close parallelism between the two cases in Hittite. In the *i*-stems this is what we find. Abl. *ḫa-an-te-iz-zi-ya-az* is close to gen. *ḫa-an-te-iz-zi-ya-aš*, and both abl. *šu-up-pa-az* and gen. *šu-up-pa-aš* show the regular contraction of *-aya-* to *-a-*. The analogical restoration of *-aya-* is more common in the ablative than in the genitive. Examples are: *ḫa-lu-wa-ya-za*, *ḫa-tu-ga-ya-az*, *pār-ku-wa-ya-az*, *šal-la-ya-az*, *šu-up-pa-ya-az*, *da-an-ku-wa-ya-az*.

**136.** In the *u*-stems also the ablative shows the same stem forms as the genitive; abl. *a-aš-šu-wa-az* matches gen. *a-aš-šu-wa-aš*, and abl. *a-aš-ša-u-wa-az* matches gen. *(a)-aš-ša-u-wa-aš*. Abl. *i-da-a-la-az* (KUB 15.42.2.9) from *i-da-lu-uš* 'bad' is probably a scribe's error; otherwise it must be due to the influence of *i*-stem ablatives like *šu-up-pa-az*.

**137.** Consonant-stem ablatives usually end in *-az*, just as the genitive ends in *-aš* [165-167], but there are a good many traces of a time when the ablative termination immediately followed the stem; e.g. *a-ra-aḫ-za* 'outside' beside *ar-ḫa* 'away', *Ē-ir-za* from *Ē-ir pi-ir* 'house', *ne-pi-iš-za* beside *ne-pi-ša-(an)-za* 'from the sky', *ta-pu-uš-za* beside *ta-pu-ša* 'near', *še-ḫu-un-za* from *še-e-ḫur* 'urine'. From the words in suffix *-tar/n-* and *-šar/n-* [159, 160], we usually find ablatives in *-an-na-az* and *-iš-na-az*, but not infrequently such forms as *pa-ap-ra-an-na-an-za* and *ḫa-an-ni-iš-na-an-za*; probably these forms illustrate the development of prehistoric *-atnnts* or *-atnts*, or of *-ešnnts*; cf. [63, 65].

#### Instrumental

**138.** The Hittite instrumental ends in *-t*, which was originally the sandhi-form of the ablative ending *-ts* before initial *s*- [88]. There are many phrases in which either case may be freely used, and occasionally they are combined in a single sentence.<sup>104</sup>

The Hittite *a*-stems show such instrumentals as *te-eš-ḫi-it* and *ḫa-aš-še-it* (KUB 12.58.4.12). The vowel *-e-*, usually written *-i-*, is to be traced to IH *-ē-* (cf. Lat. *facilumēd*, etc.)

**139.** The instrumental of *i*-stems is regularly written *-it* (e.g. *ḫal-ki-it* from *ḫal-ki-iš* 'grain'). Such forms probably correspond to the Skt. abl. *agnes* 'from the fire'. The assumption of full grade of the stem vowel in these instrumentals is made easier by the evidence for lengthened grade in *za-aḫ-ḫa-it* (KUB 11.1.4.10) from *za-aḫ-ḫa-(a)-iš* 'fight' and in *za-al-ḫa-(a)-it*, inst. of an implement used in ritual.

**140.** Instrumentals from *u*-stems are rare. *ga-nu-ut* (KUB 12.63.1.26) from <sup>UZU</sup>*gi-e-nu* 'knee' and *a-aš-ša-u-e-it* (KUB 10.92.5.1) from *a-aš-šu-uš* 'good' are among the few citable forms. Inst. *la-a-li-it* (KUB. 1.16.3.8) stands beside *la-a-lu-[uš]* (KBo. 1.51.2.19 f.) 'penis erectus', but there is also a gen. *la-a-la-aš*

<sup>104</sup> See [134 and fn. 102].

(KUB 9.34.3.30). Inst. *zu-up-pa-ri-it* (KUB 11.28.4.1) belongs with the acc. <sup>GIŠ</sup>*zu-up-pa-ru* 'torch', but pl. *zu-up-pa-ri.HIA* (KUB 20.96.4.1) implies a parallel stem in *-r* or in *-ri*.

141. Consonant stems most frequently present an instrumental with final *-it*, but there are a good many instrumentals in final *-t*, written *-ta* or *-da*,<sup>105</sup> *e-eš-ḫa-an-ta* 'by blood', *ki-iš-šar-ta* 'by hand', *iš-ḫi-ma-an-ta iš-ḫa-ma-an-da* 'with a cord', *li-in-kán-ta* 'by oath', *ú-e-da-an-da* 'by water'. Since final *-t* after a consonant was lost [82a], these forms must be analogical reformations on the basis of ablatives like *ne-pí-iš-za* 'from the sky'. The commoner instrumental ending *-it* must be interpreted as standing for *-et*, since more than half the instrumentals of *nt*-stems show final *-an-te-it*.

### Nominative Plural Masculine

142. The nominative plural masculine in *-eš* must have originated in the consonant stems or in the *i*-stems. The only consonant stems from which such forms are citable are the *nt*-stems,<sup>106</sup> but pl. *ḫu-u-ma-an-te-eš* 'omnēs' and the numerous similar orthographies are perfectly satisfactory sources of the formation. From *i*-stems also nominatives in *-eš* are frequent; they present four types of orthography: (1) *šar-kán-te-eš* beside acc. sg. *šar-kán-ti-in*, acc. pl. *šar-kán-ti-uš*, *ku-e-eš* (passim) 'qui'; (2) *ḫa-a-li-iš*, *pal-ḫi-iš*, *ḫu-ul-li-iš*; (3) *ḫal-li-ya-mi-e-eš*, *me-ik-ki-e-eš*, *na-ak-ki-e-eš*; (4) *ḫa-tu-ga-e-eš*, *me-ig-ga-e-eš*, *šu-up-pa-e-eš*. The first three kinds of spelling may all represent an ending *-es* from prehistoric *-eyes* (cf. Lat. *trēs* beside Skt. *trayas*); this must have become *-is* by the time our texts were written [36, 44]. And yet spellings of the third type are standard in the masculine plural of the *i*-stems; one may ask why scribes should prefer to write *-ḫi-e-eš*, *-mi-e-eš*, *-ni-e-eš*, *-ši-e-eš*, *-ti-e-eš*, *-zi-e-eš* rather than *-ḫé-eš*, *-me-eš*, *-ne-eš*, *-še-eš*, *-te-eš*, *-zé-eš*. The answer seems to be that the spellings with *-ḫi-*, *-mi-*, *-ni-*, *-ši-*, *-ti-*, and *-zi-* are required elsewhere in the declension. Furthermore, there is no mechanism for writing *-ke-* or *-le-* with a single sign, or *-pe-* with a familiar sign.

The fourth type of *i*-stem plurals probably contain lengthened grade of the stem vowel; IH *-ēy-* > Hitt. *-ai-*, but IH *-ēyes* probably became first *-āyes* and then *-aes* (becoming *-ais* by the time our texts were written).

### Accusative Plural Masculine

143. The ending *-uš* of all accusatives plural masculine (e.g. *ḫu-u-ma-an-du-uš* 'omnēs') originated in the accusative plural of consonant-stem masculines, corresponding to Skt. *satas*, *śvras*, Lat. *praesentēs*, IE *séntns* beside IE *ésti* 'he is'. The IH form may be plausibly reconstructed as *\*séntns*. The Hittite participle is citable as nom. sg. *a-ša-(a-)an-za*, acc. sg. *a-ša-an-ta-an*, nom. pl. masc. *a-aš-ša-an-te-es* (KUB. 14.8.2.19); in all probability the (at present unquotable) accusative plural masculine was *a-ša-an-du-uš*.

<sup>105</sup> Ehelolf, IF 43.316 f. (1926).

<sup>106</sup> Most other Hittite consonant stems are either neuters or action nouns with suffix *-t*.

## Genitive-Dative Plural

144. The ending *-aš* of genitives and datives plural, less frequently employed as nominative and accusative masculine plural, is probably based chiefly upon the genitive singular of consonant stems in IH *-os*. The use as nominative plural masculine may go back to an IH *o*-stem ending *-ōs*, and the use as accusative plural masculine may represent IH *-vns* of consonant stems (i.e. a different sandhi-form of the ending *-ns* that yielded Hitt. *-uš*).

145. The genitive plural in *-an*,<sup>107</sup> which is found in Hittite only with words for living beings, in the singular less frequently than in the plural, must be connected with the IE genitive plural ending *-ōm*. In Hittite it is found only in a few stereotyped phrases and, in combination with other formative material, in the pronouns [200].

## Neuter Plural

146. There can scarcely be any doubt that the Hittite neuter plural ending *-a* corresponds with the IE endings *-ā* and *-ə*.<sup>108</sup> There is no way of distinguishing between the two forms in Hittite; but there is reason for setting up IH *-eh* as the original of IE *-ā* and IH *-bh* as the original of IE *-a*, both of which would yield Hitt. *-a*. Examples are: *pār-na* 'buildings, house, palace', *pī-it-ta* 'payments', *a-ra-aḥ-zē-na* 'neighboring', *dan-na-at-la* 'empty'; from the *i*-stems and *u*-stems: *me-ig-ga-ya* 'multa', *ū-el-ku-wa* 'vegetation', *i-da-a-la-u-wa* 'mala'; from the consonant stems *ša-aḥ-ḥa-na* 'rents', *pa-aḥ-ḥur-ra* (KUB 17.27.2.26) 'fires'. There are also instances of *me-ik-ki* 'many' and *i-da-a-lu* 'mala'. Probably these correspond to such neuters plural as Ved. *trī* 'tria' and *purū* 'multa', etc. They also were neuter singular collectives in IH, with the collective suffix *-h*.<sup>109</sup> These neuters in *-i* occur also in a few striking forms from nouns in *-r* (*ku-u-ru-ri-ḪI.A* from *ku-u-ru-ur* 'hostility, hostile', *za-an-ki-la-tar-ri-ḪI.A* 'punishments').

## Paradigms

These are built up of actually citable forms, but before each paradigm the words employed in it are listed in the nominative singular with translation in brackets. A historical and comparative discussion of the case forms has already been given [129-46].

*a*-stems

147. [*an-na-aš* 'mother', *an-tu-uh-ša-aš*, 'man', *a-ru-na-aš* 'sea', *\*a-aš-ka-aš*(?) 'gate', *at-ta-aš* 'father', *\*ḥa-aš-ša-aš*(?) 'hearth', *iš-ḥa-(a)-aš* 'master', *\*la-aḥ-ḥa-aš* 'campaign', *\*ne-e-u-wa-aš* 'new', *pī-e-da-an* 'place', *\*dan-na-at-ta-aš* 'empty', *te-eš-ḥa-aš* 'dream', *i-ū-kán* 'yoke'].

<sup>107</sup> Ehelolf, ZA NF 9.173-81 (1935); Sommer, Bil. 162, 187 (1938); Pedersen, Hitt. u. IE 32, 193 f. (1938); Sommer, Heth. u. Heth. 48 f. (1947).

<sup>108</sup> Sturtevant, Lang. 14.75, 245 f. (1938), CP 36.358-64 (1941), Lang. 24.259-61 (1948).

<sup>109</sup> Neuter singular collective nouns serve better as the ultimate source of neuters plural than the feminine singular collectives that are customarily assumed. This gives us an immediate explanation of the identity in form of nominative and accusative neuter plural. It also becomes clear why the feminine collectives of Proto-IE had no case ending in the nominative singular.

## Singular

nom.	<i>an-na-aš, an-tu-uḫ-ša-aš, a-ru-na-aš, at-ta-aš ad-da-aš, iṣ-ḫa-(a)-aš</i>
acc.	<i>an-tu-uḫ-ša-an, a-ru-na-an, at-ta-an, ḫa-aš-ša-an, dan-na-at-ta-an</i>
neut.	<i>pt-e-da-an, dan-na-at-ta-an, i-ú-kán i-ú-ga-an</i>
gen.	<i>a-an-na-aš, an-tu-uḫ-ša-aš, a-ru-na-aš, at-ta-aš ad-da-aš, ḫa-aš-ša-aš, iṣ-ḫa-(a)-aš</i>
dat.	a. <i>an-ni, an-tu-uḫ-ši, a-ru-ni, at-ti, ḫa-aš-ši(-i), iṣ-ḫi(-i) eš-ḫi, la-aḫ-ḫé</i>
	b. <i>la-aḫ-ḫi, pt-e-te pt-(e)-di</i>
	c. <i>a-ru-na, a-aš-ka, la-aḫ-ḫa</i>
abl.	<i>an-na-az an-na-za, a-ru-na-az a-ru-na-za, a-aš-ka-az a-aš-ka-za, ḫa-aš-ša-az, te-eš-ḫa-az</i>
inst.	<i>ne-e-u-it, te-eš-ḫi-it</i>

## Plural

nom.	<i>an-ni-iš, an-tu-uḫ-še-eš an-tu-uḫ-ši-iš, at-te-eš, iṣ-ḫé-eš, dan-na-at-te-eš</i>
acc.	<i>an-nu-uš, an-tu-uḫ-šu-uš, ad-du-uš, te-eš-ḫu-uš</i>
neut.	<i>dan-na-at-ta</i>
gen.-dat.	<i>an-tu-uḫ-ša-aš, ad-da-aš, pt-e-da-aš, dan-na-at-ta-aš</i>

*i*-stems

148. Hittite, like Latin, is peculiarly rich in *-i*-stem adjectives; in both languages these show reduced grade of the stem vowel in nominative and accusative singular. A number of Hittite nouns also show *-iš* and *-in* innominative and accusative singular. In other cases there is a good deal of variation; it is more convenient to give the reduced grade and full grade forms in one paradigm, and the lengthened grade forms in another.

[*e-eš-(ša)-ri* 'form, figure, representation', *ḫal-ki-iš* 'grain', *ḫa-an-te-iz-zi-iš* 'first', *ḫa-aš-ta-i* 'bone, skeleton', \**ḫa-tu-ki-iš* 'frightful', *ḫu-uk-ma-iš* 'magic, incantation', *ḫu-(u)pu-wa-i*, a kind of cup, *ḫur-ta-a-iš* 'curse', *ḫu-(u)wa-(a)-ši*, a stone pillar, *ka-ru-ú-i-li-iš* 'former', *li-in-ga-iš* 'oath', *lu-ut-ta-i* 'window', *me-ik-ki-iš* 'large', *na-ak-ki-iš* 'heavy', *pár-ku-(i)-iš* 'pure', *šal-li-iš* 'glorious', DINGIR-LIM-*iš* = *ši-u-ni-iš* 'god', *šu-up-pt-iš* 'clean, holy', *da-an-ku-i-iš* 'dark', *tu-uz-zi-iš* 'army', *wa-al-ḫi* a sacrificial drink, *za-aḫ-ḫa-iš* 'fight']

## 148a. Full grade and zero grade forms

## Singular

nom.	<i>ḫal-ki-iš, ḫa-an-te-iz-zi-iš, me-ik-ki-iš, na-ak-ki-iš, pár-ku-(i)-iš, šal-li-iš, šu-up-pt-iš, da-an-ku-i-iš, tu-uz-zi-iš</i>
acc.	<i>ḫal-ki-in, ḫa-an-te-iz-zi-in, na-ak-ki-in, šu-up-pt-in, da-an-ku-in, za-aḫ-ḫi-in</i>
neut.	<i>e-eš-(ša)-ri, ḫu-(u)wa-(a)-ši, me-ik-ki(-i), na-ak-ki-i, šal-li, da-an-ku-i, wa-al-ḫi</i>
gen.	<i>ḫal-ki-(ya)-aš, ḫa-an-te-iz-zi-ya-aš, ḫa-aš-ti-ya-aš, ḫur-ti-ya-aš, da-an-ku-ya-aš, tu-uz-zi-ya-aš, wa-al-(aḫ-)ḫi-ya-aš, za-aḫ-ḫi-ya-aš</i>



dat.	a.	<i>e-eš-ri-eš-ši, ha-an-te-(iz-)zi, hu-(u)wa-(a)-ši, ka-ru-ú-i-li, na-ak-ki-i, da-an-ku-i, tu-zi</i>
	b.	<i>hu-(u)wa-ši-ya, lu-ut-ti-ya, tu-uz-zi-ya, za-aḥ-ḥi-ya</i>
abl.		<i>ha-an-te-iz-zi-ya-az, hu-ur-ti-ya-az, hu-u-wa-ši-ya-az, li-in-ki-(ya-)az, lu-ut-ti-ya-az</i>
inst.		<i>ḥal-ki-it, ha-aš-ti-(i-)it, wa-al-ḥi-it</i>

## Plural

nom.	<i>ka-ru-ú-(i-)li-e-eš, me-ik-ki-e-eš, na-ak-ki-e-eš</i>
acc.	<i>ḥal-ki-uš, ha-an-te-iz-zi-uš, me-ik-ku-uš, šu-up-pt-ú-us, tu-uz-zi-uš</i>
neut.	<i>hu-wa-a-ši-III.A, me-ik-ki</i>
gen.-dat.	<i>ḥal-ki-aš, ha-an-te-iz-zi-(ya)-aš, ha-aš-ti-ya-aš, hu-wa-ši-ya-aš, ka-ru-ú-i-li-(ya)-aš</i>

## Heteroclitic forms

nom. sg.	<i>ha-an-te-iz-zi-ya-aš</i>
acc. sg.	<i>ha-an-te-iz-zi-ya-an</i>

148b. Lengthened grade forms<sup>110</sup>

## Singular

nom.	<i>hu-uk-ma-iš, hur-ta-(a)-iš, za-aḥ-ḥa-(a)-iš</i>
acc.	<i>hu-uk-ma-in, hu-ur-ta-in, li-in-ga-in, za-aḥ-ḥa-in</i>
neut.	<i>ha-aš-ta-(a)-i, hu-(u)pu-wa-i, lu-ut-ta-i lu-ud-da-a-i</i>
gen.	<i>li-in-ga-ya-aš, pár-ku-wa-aš, šal-la-aš, šu-up-pa-(ya)-aš</i>
dat.	a. <i>ha-aš-ta-i, li-in-ga-i li-en-ga-i, lu-ut-ta-i, pár-ku-wa-i, šal-la-i, šu-up-pa-i</i>
	b. <i>ha-tu-ga(-ya), pár-ku-wa-ya, šu-up-pa(-ya)</i>
abl.	<i>ha-tu-ga-ya-az, lu-ut-ta-az lu-ut-ta-an-za, šal-la-ya-az, šu-up-pa(-ya)-az, šu-up-pa-za, da-an-ku-wa(-ya)-az</i>
inst.	<i>za-aḥ-ḥa-it</i>

## Plural

nom.	<i>ha-tu-ga-e-eš, hu-uk-hu-uk-ma-iš, ma-iš, me-ig-ga-e-eš, pár-ku-wa-a-iš, šu-up-pa-eš, ta-an-ku-wa-e-eš</i>
acc.	<i>ha-tu-ga-ú-uš, hur-ta-uš, li-en-ga-uš, lu-ut-ta-a-uš, me-ig-ga-uš, šu-up-pa-uš</i>
neut.	<i>ka-ru-ú-i-la, me-ig-ga-ya, šu-up-pa(-ya), ta-an-ku-wa-ya da-an-ku-wa(-ya) da-an-ku-wa-i</i>
gen.	<i>ši-ú-na-an</i>
gen.-dat.	<i>pár-ku-wa-ya-aš, šal-la-ya-aš, ši-ú-na-aš, šu-up-pa-ya-aš</i>

## Heteroclitic form

neut. sg.	<i>ha-at-tu-ga-an</i>
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<sup>110</sup> The full grade and zero grade forms of genitive, dative, ablative, and instrumental are often substituted for these; see [148a].



## u-stems

**149.** Hittite has noun and adjective stems in *u*. There is only one common word with lengthened grade in nominative and accusative singular, but lengthened grade appears in other cases as in the *i*-stems; hence the lengthened grade forms are here assigned to a separate paradigm.

[*a-aš-šu-uš* 'good', *har-na-a-uš* 'birth chair', <sup>GIS</sup>*ha-at-ta-lu* 'bolt' of a door, *hé-e-(u)-uš* 'rain', *\*hu-e-šu-uš* 'alive, raw', *i-da-(a)-lu-uš* 'bad', *gi-e-nu* 'knee', *\*ku-ut-ru-uš* 'witness', *pa-an-ku-uš* 'all, whole', *pár-ku-uš* 'high', *da-aš-šu-uš* 'strong', *\*wa-ap-pu-uš* 'river bank, clay pit', *ú-el-ku*, a plant]

**149a.** Full grade and zero grade forms

## Singular

nom.	<i>a-aš-šu-uš, hé-e-(u)-uš hé-e-ú-uš, i-da-(a)-lu-uš, pa-an-ku-uš</i>
acc.	<i>hé-u-(u)-un hé-e-ú-un, i-da-(a)-lu-un, pa-an-ku-un, wa-ap-pu-un</i>
neut.	<i>a-aš-šu, hu-(u)-e-šu hu-(u)-i-šu, i-da-(a)-lu, gi-(e)-nu, da-aš-šu, ú-el-ku</i>
gen.	a. <i>(a)-aš-šu-wa-aš, ha-at-tal-wa-aš, hé-e-u-wa-aš, gi-nu-wa-aš, ku-ut-ru-aš,</i> <i>wa-ap-pu-(u)-wa-aš wa-ap-pu-ú-wa-aš</i>
	b. <i>pa-an-ku-uš, wa-ap-pu-uš<sup>111</sup></i>
dat.	a. <i>aš-šu-ú-i, a-aš-šu-u-i, ta-aš-šu-ú-i, wa-ap-pu-(ú)-i, ú-el-ku-i</i>
	b. <i>gi-nu</i>
	c. <i>ha-at-tal-wa, gi-e-nu-wa, wa-ap-pu-u-wa, ú-e-el-ku-wa</i>
abl.	<i>a-aš-šu-wa-az, gi-nu-wa-az, wa-ap-pu-wa-az</i>
inst.	<i>ga-nu-ut (from gi-e-nu)</i>

## Plural

nom.	<i>ku-ut-ru-e-eš, pár-ku-wa-a-eš</i>
acc.	<i>hé-e-(ú)-uš, pa-an-ku-uš</i>
neut.	<i>a-aš-šu, i-da-a-lu, gi-(e)-nu-wa, ú-el-ku-wa</i>
gen.-dat.	<i>a-aš-šu-wa-aš, hu-i-šu-wa-aš, gi-e-nu-wa-aš</i>

## Heteroclitc forms

acc. sg.	<i>gi-nu-un</i>
dat. pl.	<i>hu-u-i-ša-aš</i>
inst. sg.	<i>wa-ap-pu-mi-it (KUB 30.35.1.8)</i>

**149b.** Lengthened grade forms

## Singular

nom.	<i>har-na-a-uš</i>
acc.	<i>har-na-ú-un har-na-a-ú</i>
gen.	<i>(a)-aš-ša-u-wa-aš, har-na-a-u-wa-aš, hé-e-ya-u-wa-aš, pa-an-ga-u-wa-aš</i>
dat.	<i>a-aš-ša-u-i, i-da-(a)-la-(a)-u-i, har-na-a-u-i har-na-a-ú, pa-an-ga-u-e,</i> <i>da-aš-ša-(u)-wa</i>
abl.	<i>a-aš-ša-u-wa-az, i-da-(a)-la-u-wa-az</i>
inst.	<i>a-aš-ša-u-it, hé-e-a-u-it</i>

<sup>111</sup> Goetze, Tunn. 55 and fn. 172 (1938).

## Plural

nom.	<i>a-aš-ša-u-e-eš, ḥu-u-wi-ša-u-e-eš, i-da-(a-)la-u-(e-)eš, pâr-ga-u-e-eš</i>
acc.	<i>pâr-ga-u-uš, da-aš-ša-uš</i>
neut.	<i>i-da-a-la-u-wa</i>
gen.-dat.	<i>i-da-alla-u-wa-aš, pâr-ga-(a-)u-wa-aš</i>

## Heteroclititic forms

acc. pl.	<i>a-aš-ša-mu-uš, ḥi-e-a-mu-uš, i-da-la-mu-uš, pâr-ga-mu-uš</i>
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*e*-stem150. [*ud-ne* 'country']

## Singular

nom.-acc.	<i>ud-ne(-e), ud-ni(-e)</i>
gen.	<i>ud-ne-ya-aš</i>
dat.	a. <i>ud-ne-e, ud-ni(-e)</i> b. <i>ud-ni-ya, ud-ne-e-ya</i>
abl.	<i>ud-ni-ya-az</i>

## Plural

nom.-acc.	<i>ud-ne-e, ud-ni-e</i>
gen.-dat.	<i>KUR-e-aš</i>

*a/n*-stems

151. These relatively few Hittite nouns may be compared with Lat. *homō hominis*, etc.<sup>112</sup>

[*ar-kam-ma-aš* 'tribute', *ḥa-a-ra-aš* 'eagle', *me-mi-(ya)-aš* 'word']

## Singular

nom.	<i>ar-kam-ma-aš, ḥa-a-ra-aš, me-mi-(ya)-aš</i>
acc.	<i>ar-kam-ma-an, ḥa-a-ra-(na-)an, me-mi-(ya-)an</i>
gen.	<i>ar-kam-ma-na-aš, ḥa-(a-)ra-na-aš, me-mi-ya-na-aš</i>
dat.	<i>me-mi-(ya-an-)ni</i>
abl.	<i>me-mi-(ya-)na-az</i>

## Plural

nom.	<i>me-mi-ya-ni-eš</i> (KUB 29.8.1.1)
acc.	<i>ar-ga-mu-uš, me-mi-ya-nu-uš</i>
gen.-dat.	<i>me-mi-ya-aš</i>

*l*-stems

152. [*iš-ḥi-(ya)-al* 'girdle', *iš-ḥi-ú-ul* 'agreement', *me-ma-al* 'meal', *šar-ni-ik-zi-el* 'restitution', *ták-šu-(ú)-ul* 'peace, friendship', *ta-a-u-wa-al*, a sacrificial drink, *ta-ya-az-zi-il* 'theft', *wa-aš-túl* 'sin']

<sup>112</sup> Benveniste, *Origines* 1.24 f. (1935); Pedersen, *Hitt. u. IE* 41 f. (1938).

## Singular

nom.-acc.	<i>iš-ḫi-(ya-)al, iš-ḫi-ú-ul, me-ma-al, šar-ni-ik-zi-(i-)il šar-ni-ik-zi-el, ták-šu-ul ták-šu-ú-ul, ta-(a-u-)wa-al, ta-ya-az-zi-il</i>
gen.	<i>iš-ḫi-ú-(ul-)la-aš, me-ma-(al-)la-aš, ták-šu-la-aš, ta-a-u-wa-la-aš, ta-ya-zi-la-aš, wa-aš-du-la-aš</i>
dat.	<i>ták-šu-li, ta-wa-li (KUB 10.99.1.25), wa-aš-du-(ú-)li, wa-aš-túl-li</i>
abl.	<i>iš-ḫi-ya-la-az, šar-ni-ik-zi-la-az</i>
inst.	<i>me-ma-li-it, ta-(a-u-)wa-li-it ta-wa-al-li-it</i>

## Plural

neut.	<i>iš-ḫi-ú-la iš-ḫi-ú-li.ḪI.A, ták-šu-ul, wa-aš-du-ul.ḪI.A</i>
gen.-dat.	<i>ták-šu-la-aš</i>

## r-stems

153. [<sup>DUG</sup>*ḫu-up-pár* 'large jar', *kal-la-ar* 'bad', *ki-eš-šar* 'hand', *ku-(u)ru-(u)ur* 'hostility, hostile', *pár-šu-u-ur* 'bread crumbs', *ša-a-ku-wa-aš-šar* 'entire, correct', *ši-it-tar* 'sun disk']

## Singular

nom.-acc.	<i>ḫu-(u)up-pár, kal-la-ar, ki-eš-šar, ku-(u)ru-ur ku-ru-u-ur, pár-šu-u-ur, ša-(a)ku-wa-aš-šar, ši-(it-)tar</i>
acc. masc.	<i>kal-la-ra-an, ša-ku-wa-aš-ša-ra-an, ši-it-ta-ra-an</i>
gen.	<i>ḫu-(u)up-pár-aš, ku-(u)ru-ra-aš, ša-ku-wa-aš-ša-ra-aš</i>
dat.	<i>ḫu-(u)up-pa-ri, ki-iš-ša-ri-(i) ki-iš-ri ki-iš-ši-ri, ku-u-ru-ri, ša-ku-wa-aš-ša-ri</i>
abl.	<i>ḫu-u-up-pa-ra-za, ki-iš-ša-ra-az, ku-ru-ra-an-za ši-it-tar-(ra-)za</i>
inst.	<i>ḫu-up-ri-it (KUB 25.1.2.18), kal-la-ri-it, ki-iš-ša-ri-it ki-iš-še-ri-it ki-iš-šar-ta, pár-šu-u-ri-it, ša-ku-wa-aš-ša-ri-it</i>

## Plural

nom.-acc.	<i>ḫu-up-pár ḫu-up-pa-ra, ku-u-ru-ur ku-ru-ri.ḪI.A, ši-it-ta-ra</i>
dat.	<i>ki-iš-ra-aš, ku-u-ru-ra-aš</i>

## Heteroclititic forms

nom. sg.	<i>ki-eš-ši-ra-aš</i>
acc. sg.	<i>ki-iš-še-ra-an</i>
acc. pl.	<i>ki-iš-še-ru-uš</i>

## n-stems with -(a)n- before oblique case endings

154. [*ḫi-in-kan ḫi-en-kan* 'fate, death', *i-na-an* 'pestilence', *\*iš-ša-na-an* 'dough', *ku-uš-ša-an* 'pay', *ša-aḫ-ḫa-an* 'ground rent']

## Singular

nom.-acc.	<i>ḫi-in-kan ḫi-en-kan ḫe-en-kan ḫi-in-ga-an, i-na-an, iš-(ša-)na-an, ku-uš-ša-an ku-(ú-)ša-an, ša-aḫ-ḫa-an</i>
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gen.	<i>hi-in-ga-na-aš, i-na-na-aš, iš-na-(a)aš iš-ša-na-aš e-eš-ša-na-aš, ša-ah-ḥa-na-aš</i>
dat.	<i>hi-in-ga-ni hi-kán-ni, i-na-ni, iš-ni, ku-uš-(ša-)ni(-i), ša-ah-ḥa-ni</i>
abl.	<i>hi-in-ga-na-az hi-in-ga-na-za, ku-uš-na-az, ša-ah-ḥa-na-az, ša-ah-ḥa-na-za</i>
inst.	<i>iš-ni-it, ša-ah-ḥa-ni-it</i>

## Plural

nom.-acc.	<i>ša-ah-ḥa-na</i>
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## Heteroclititic form

nom. sg.	<i>iš-ša-na-aš</i>
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*n*-stems with zero grade before oblique case endings

155. [*la-a-ma-an* 'name', *te-kán* 'earth'<sup>113</sup>.]

nom.-acc.	<i>la-a-ma-an, te-(e)kán</i>
gen.	<i>lam-na-aš, ták-na-(a)aš</i>
dat.	<i>la-am-ni, ták-ni-i ták-na-a</i>
abl.	<i>ták-na-(a)az</i>
inst.	<i>lam-ni-it</i>
dat. pl.	<i>la-am-na-aš</i>

*r/n*-stems with old ablaut

156. [*pa-ah-ḥu-wa-ar* 'fire', *wa-a-tar* 'water']

## Singular

nom.-acc.	<i>pa-ah-ḥur, pa-ah-ḥu-ur, pa-ah-ḥu-wa-ar, (ú-)wa-a-tar, ú-wi-ta-ar</i>
gen.	<i>pa-ah-ḥu-e-na-aš, ú-i-te-na-aš</i>
dat.	<i>pa-ah-ḥu-(e-)ni, ú-i-te-(e-)ni ú-e-te-ni</i>
abl.	<i>pa-ah-ḥu-(e-)na-az pa-ah-ḥu-na-za, ú-e-te-na-az ú-i-te-na-az</i>
inst.	<i>pa-ah-ḥu-e-ni-it, ú-i-te-ni-it ú-e-te-ni-it ú-e-da-an-da</i>

## Plural

nom.-acc.	<i>pa-ah-ḥur-ra (KUB 17.27.2.26), ú-i-da-a-ar</i>
gen.-dat.	<i>ú-wi-te-na-aš</i>

*r/n*-stems with ablaut slightly disturbed

157. [*e-eš-ḥar* 'blood', *ku-ut-tar* 'neck', *ut-tar* 'word, affair']

## Singular

nom.-acc.	<i>e-eš-ḥar iš-ḥar e-eš-ḥa-ar, ku-ut-tar ku-ú-tar, ut-tar</i>
gen.	<i>(e)-eš-ḥa-na-aš iš-ḥa-na-aš, ud-da-na-aš</i>
dat.	<i>e-eš-ḥa-ni(-i) iš-ḥa-ni-i, ku-ut-ta-ni, ud-da-ni-i ud-da-a-ni(-i)</i>
abl.	<i>iš-ḥa-na-az e-eš-ḥa-na-an-za, ud-da-(a-)na-az ud-da-a-na-za</i>
inst.	<i>e-eš-ḥa-an-ta, ku-ut-ta-ni-it, ud-da-ni-it ud-da-an-ta</i>

<sup>113</sup> Cf. *da-ga-(a-)an* 'to the ground'.

## Plural

nom.-acc.	<i>ud-da-a-ar ud-da-ra</i>
dat.	<i>ud-da-na-a-aš</i>

*r/n-stems in -ur*

158. [*me-ḫur* 'time', *pa-an-kur* 'family', *še-e-ḫur* 'urination']

## Singular

nom.-acc.	<i>me-ḫur, pa-an-kur pa-an-ku-ur, še-e-ḫur</i>
gen.	<i>me-(e)-ḫu-na-aš, pa-an-ku-na-aš, še-e-ḫu-na-aš ši-e-ḫu-na-aš</i>
dat.	<i>me-(e)-ḫu-ni me-ḫu-u-ni me-e-ḫu-e-ni, še-(e)-ḫu-na</i>
abl.	<i>še-e-ḫu-na-an-za</i>
inst.	<i>pa-an-ku-ni-it</i>

*r/n-stems with zero grade in oblique cases—nouns in -tar*

159. [*ap-pa-a-tar* 'taking', *ḫa-aš-ša-tar* 'procreation', *ḫu-u-i-tar* 'the animals', URUD *iš-pa-a-tar*, an implement for taking food from the fire, *pa-ap-ra-tar* 'uncleanness', *šu-ul-la-tar* 'fight', *za-an-ki-la-tar* 'punishment']

## Singular

nom.-acc.	<i>ap-pa-a-tar, a-ša-(a)-tar, ḫa-(aš)-ša-(a)-tar, ḫu-u-i-tar ḫu-i-ta-ar, iš-pa-a-tar, pa-ap-ra-tar, šu-ul-la-tar, za-an-ki-la-tar</i>						
gen.	<i>ap-pa-an-na-aš, a-ša-an-na-aš, ḫa-aš-ša-an-na-aš, ḫu-it-na-aš, pa-ap-ra-an-na-aš</i>						
dat.	<table border="0"> <tr> <td>a.</td><td><i>pa-ap-ra-an-ni, šu-ul-la-an-ni</i></td></tr> <tr> <td>b.</td><td><i>ap-pa-an-na, ḫa-aš-ša-an-na</i></td></tr> <tr> <td>c.</td><td><i>ḫa-aš-ša-an-na-i</i></td></tr> </table>	a.	<i>pa-ap-ra-an-ni, šu-ul-la-an-ni</i>	b.	<i>ap-pa-an-na, ḫa-aš-ša-an-na</i>	c.	<i>ḫa-aš-ša-an-na-i</i>
a.	<i>pa-ap-ra-an-ni, šu-ul-la-an-ni</i>						
b.	<i>ap-pa-an-na, ḫa-aš-ša-an-na</i>						
c.	<i>ḫa-aš-ša-an-na-i</i>						
abl.	<i>ḫa-aš-ša-an-na-az ḫa-aš-ša-an-na-an-za, pa-ap-ra-an-na-az, šu-ul-la-an-na-za</i>						
inst.	<i>iš-pa-an-ni-it, ḫu-u-it-ni-it</i>						

## Plural

nom.-acc. *za-an-ki-la-tar za-an-ki-la-tar-ri*.HIA

*r/n-stems with zero grade in oblique cases—nouns in -ššar*

160. [*a-še-eš-šar* 'assembly', *ḫa-an-ne-eš-šar* 'litigation', *ku-ri-eš-šar* 'cutting, cloth', *tuh-ḫu-eš-šar* 'censer'(?), *tu-un-na-ak-ki-eš-šar* 'interior', *up-pí-eš-šar* 'gift']

## Singular

nom. acc.	<i>a-še-eš-šar, ḫa-an-ne-eš<sub>15</sub>-šar ḫa-an-ne-eš-šar, ku-ri-eš-šar, tuh-ḫu-(e)-eš-šar, tu-un-na-(ak-)-ki-eš-šar</i>				
gen.	<i>ḫa-an-ne-eš-na-aš, du-un-na-ak-ki-eš-na-aš tu-un-na-(ak-)-ki-eš-na-aš</i>				
dat.	<table border="0"> <tr> <td>a.</td><td><i>a-še-eš-ni, ḫa-an-ne-eš-ni ḫa-an-ne-iš-ni, ku-ri-eš-ni</i></td></tr> <tr> <td>b.</td><td><i>tu-un-na-ki-iš-na tu-un-na-ak-eš-na</i></td></tr> </table>	a.	<i>a-še-eš-ni, ḫa-an-ne-eš-ni ḫa-an-ne-iš-ni, ku-ri-eš-ni</i>	b.	<i>tu-un-na-ki-iš-na tu-un-na-ak-eš-na</i>
a.	<i>a-še-eš-ni, ḫa-an-ne-eš-ni ḫa-an-ne-iš-ni, ku-ri-eš-ni</i>				
b.	<i>tu-un-na-ki-iš-na tu-un-na-ak-eš-na</i>				

abl.	<i>a-še-eš-na-za, ḥa-an-ne-eš-na-az ḥa-an-ni-iš-na-an-za</i>
inst.	<i>ḥa-an-ne-eš-ni-it ḥa-an-ni-iš-ni-it, tūḥ-ḥu-i-iš-ni-it</i>

## Plural

nom.-acc.	<i>ku-ri-eš-šar.ḪI.A, up-pí-eš-šar.ḪI.A up-pí-eš-šar.MEŠ</i>
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*r/n-stems concrete nouns in -war*

**161.** [*a-ša-a-u-ar* 'sheepfold, goat pen', *pár-ta-u-wa-ar* 'wing']

nom.-acc.	<i>a-ša-a-u-ar, pá-r-tu-u-wa-ar</i>
dat.	<i>a-ša-ú-ni a-ša-u-ni</i>
abl.	<i>a-šu-u-na-az</i>
inst.	<i>pár-ta-a-u-ni-it</i>
dat. pl.	<i>pár-ta-u-na-aš</i>

*r/n-stems verbal nouns in -war and -mar*

**162.** [*ar-ku-wa-ar* 'to plead', \**ḥu-u-i-ša-wa-ar* 'to live', \**šar-ni-in-ku-ar* 'to make restitution', *ti-ya-u-wa-ar* 'to place', *a-ar-nu-mar* 'to bring', *tar-nu-mar* 'to put in']

nom.-acc.	<i>(a-)ar-ku-(u)wa-ar, ti-ya-u-wa-ar</i>
gen.	<i>ḥu-u-wi-ša-u-e-eš,<sup>114</sup> šar-ni-in-ku-e-eš<sup>114</sup> šar-ni-in-ku-wa-aš, ti-ya-u-wa-aš</i>
nom.-acc.	<i>a-ar-nu-mar, tar-nu-mar</i>
gen.	<i>a-ar-nu-um-ma-as, tar-nu-um-ma-aš</i>

*s-stems*

**163.** [*a-i-iš* 'mouth', *ḥa-a-aš* 'soup', *iš-ki-iš* 'back',<sup>115</sup> *ne-pí-iš* 'sky', \**ta-pu-uš* 'side']

nom.-acc.	<i>a-(i)iš, ḥa-a-aš, iš-ki-iš, ne-pí-iš</i>
gen.	<i>iš-ša-aš, ne-pí-ša-aš</i>
dat.	<div style="display: flex; align-items: center;"> <div style="font-size: 2em; margin-right: 5px;">{</div> <div style="margin-left: 5px;"> <div>a. <i>iš-ši(-i), iš-ki-ši, ne-pí-ši</i></div> <div>b. <i>iš-ki-ša, ta-pu-(u)ša ta-pu-ú-ša da-pu-u-ša</i></div> </div> </div>
abl.	<i>iš-ša-az, iš-ki-ša-az, ne-pí-ša-az ne-pí-iš-za ne-pí-ša-za ne-pí-ša-an-za, ta-pu-uš-za</i>
dat. pl.	<i>iš-ki-ša-aš</i>

## Heteroclitic forms

nom.	<i>a-i-iš-ši-iš, ta-pu-wa-aš</i>
acc.	<i>ḥa-aš-ša-an</i>
gen.	<i>ne-pí-aš, ta-pu-wa-aš</i>

*ḥ-stem*

**164.** The only Hittite noun with a nominative in final *ḥ* that can be cited is *iš-qa-ru-uḥ*, a vessel for wine. Several other words may have had such a nominative, but there is no proof citable.

<sup>114</sup> See [101].

<sup>115</sup> Goetze, Mél. Pedersen 494 (1937).

nom.-acc.	<i>iš-ga-ru-uh, iš-ga-ru-uh</i>
dat.	<i>iš-ga-ru-ḫi iš-ga-ru-ḫi</i>
inst.	<i>iš-ga-ru-ḫi-it iš-ga-ru-ḫi-it iš-ga-ru-uh-it iš-ka-ru-ḫi-it</i>

*t*-stems with a vowel before *t*

**165.** [*a-ni-ya-za* 'performance', as a neut. pl. 'ritual garments',<sup>116</sup> *kar-tim-mi-(ya-)az* 'anger', *ne-ku-uz* 'evening', *pu-ru-ut* 'mud', *du-uš-ga-ra-az* 'joy']

#### Singular

nom.	<i>a-ni-ya-za, kar-tim-mi-(ya-)az kar-tim-mi-ya-za, ne-ku-uz, du-uš-ga-ra-az</i>
acc.	<i>a-ni-ya-at-ta-an, kar-tim-mi-ya-at-ta-an, du-uš-ga-ra-at-ta-an du-uš-ga-ra-da-an</i>
neut.	<i>pu-(u-)ru-ut</i>
gen.	<i>a-ni-ya-at-ta-aš a-ni-ya-ad-da-aš, ne-ku-uz ne-ku-za</i>
dat.	a. <i>kar-di-mi-at-ti, du-uš-ga-ra-ti</i> b. <i>du-uš-ka-ra-at-ta</i>
abl.	<i>du-uš-ka-ra-at-ta-az</i>

#### Plural

acc.	<i>kar-tim-mi-ya-ad-du-uš</i>
neut.	<i>a-ni-ya-at-ti a-ni-ya-at-ta</i>

#### št-stem

**166.** [*ka-a-aš-za* 'hunger']

nom.	<i>ka-a-aš-za</i>
acc.	<i>ka-aš-ta-an ga-aš-ta-an</i>
gen.	<i>ga-aš-ta-aš</i>
dat.	<i>ka-(a-)aš-ti</i>
inst.	<i>ka-a-aš-ti-ta-</i>

#### nt-stems

**167.** [*\*a-a-an-za* 'hot', *ḫa-an-za* 'front', *ḫu-u-ma-an-za* 'all, whole', *\*ki-iš-du-wa-an-za* 'hungry', *da-an-za* 'taken', *\*zé-e-an-za* 'cooked']

#### Singular

nom.	<i>ḫa-an-za, ḫu-u-ma-an-za, da-an-za</i>
acc.	<i>ḫu-u-ma-an-da-an ḫu-u-ma-an-ta-an, zé-e-an-da-an</i>
neut.	<i>a-a-an, ḫu-(u-)ma-an, da-a-an ta-a-an, zé-ya-an</i>
gen.	<i>a-a-da-aš (KUB 8.62.1.13), ḫu-u-ma-an-da-aš</i>
dat.	a. <i>ḫa-an-ti(-i) ḫa-an-di, ḫu-u-ma-an-ti(-i), ki-iš-du-wa-an-ti</i> b. <i>ḫa-an-da, ki-iš-du-wa-an-da</i>

<sup>116</sup> Goetze, JCS 1.176 and fnn. 6, 7, 8 (1947).

abl.	<i>ɦu-u-ma-an-da-az ɦu-u-ma-an-da-za, zé-ya-an-ta-az zi-ya-an-da-az zé- e-ya-ta-za</i>
inst.	<i>a-a-an-te-it, ɦu-u-ma-an-te-it, zé-e-ya-an-te-it</i>

## Plural

nom.	<i>ɦu-u-ma-an-te-eš, ki-iš-du-wa-an-te-eš, da-an-te-eš</i>
acc.	<i>ɦu-u-ma-an-du-uš, ki-iš-du-wa-a-an-du-uš</i>
neut.	<i>a-a-an-ta a-a-an.ȨI.A, ɦu-u-ma-an-da ɦu-u-ma-an-ta, zé-ya-an-ta zé- e-an-da</i>
gen.-dat.	<i>ɦu-u-ma-an-da-aš</i>



## PRONOUNS

## PERSONAL PRONOUNS

**168.** Walter Petersen<sup>1</sup> showed that there is no evidence in favor of a complete declension of the personal pronouns in Proto-IE. In that language case relations of these words may have been indicated largely by the context, although a rudimentary declension had already been developed under the influence of the nouns and the adjective pronouns. He sets up a paradigm (p. 187) which includes the following:

IE PERSONAL PRONOUNS		
	<i>First Singular</i>	<i>Second Singular</i>
nom.	<i>eġ eġom</i>	<i>tǎ</i>
acc.	<i>mě eme<sup>2</sup> moi</i>	<i>twě tě toi</i>
	<i>First Plural</i>	<i>Second Plural</i>
nom.	<i>wei weis</i>	<i>yǎ yǎs</i>
acc.	<i>nōs ŋs(s)me</i>	<i>wōs us(s)me</i>
	<i>First Dual</i>	<i>Second Dual</i>
nom.	<i>wē</i>	<i>yū</i>
oblique	<i>nō</i>	<i>wō</i>

Petersen sets up also forms for genitive and dative singular and plural, but these are in the singular obviously secondary developments, and in the plural identical with certain forms of the accusative. Furthermore, the form *eġom* is recognized as *eġ* plus *-om*, which seems to be a particle, and the dissyllabic forms of the accusative plural consist of *ŋs* and *us*, zero grade of *nos* and *vos*, respectively, plus a particle *-sme*. Petersen's very acute identification of Hitt. *zi-ik* 'tu' with Osc. *tiium tiū* 'tu' (p. 174 and fnn. 34, 35, 36) might lead one to expect him to assume IE *tē* in the nominative singular, but that he does not do, and as far as Proto-IE is concerned, he is right. No doubt the reversal in use of the stems *tǎ* and *tě* in Proto-IE, as against IH, was due to the influence of *mě* in the first person.<sup>3</sup>

**169.** We now know that the frequent variation between long and short final vowels in IE monosyllables is due to lengthening on the loss of initial laryngeals in the following word.<sup>4</sup> Therefore our reconstruction of the Proto-IH personal

<sup>1</sup> Lang. 6.164-93 (1930).

<sup>2</sup> Better *emé*; cf. Hitt. *am-mu-uk*.

<sup>3</sup> Cf. the use of *thee* as a nominative in dialectic modern English, especially by the Quakers. Very likely *thee is* is due to the influence of *he is* and *she is*.

<sup>4</sup> IHL 66-9 (1942).

pronouns should omit several of the forms with final long vowel in [168]. This process can scarcely eliminate the form *tē*, because this is independently required by Hitt. *zi-ik* 'tu', whose initial *z* from IH *t* is due to following IH *ē* [82c]. Probably the IE forms *nōs* and *wōs*, beside *nos* and *wos*, owe their vowel length to the influence of final long vowels of other forms, particularly dual oblique *nō* and *wō*.

We may therefore assume for Proto-IH the following paradigm for the accented personal pronoun of the first and second persons. We omit the IE forms *moi* and *toi* as being unaccented. We also omit the dual, in the lack of Hittite evidence, and, for the same reason, the nominative plural of the second person.

#### IH PERSONAL PRONOUNS

	<i>First Singular</i>	<i>Second Singular</i>
nom.	'ég	tē
oblique	mé 'vmé	twé, twó
	<i>First Plural</i>	<i>Second Plural</i>
nom.	wéys	?
oblique	'nós, 'vns(-smé)	'wós, 'ws(-smé)

One sees here very clearly the pattern of seven, originally eight, mutually independent stems secondarily welded into a system. This appears quite as clearly in the earliest Hittite, and certain gaps are filled in by early Indo-European.

#### Remarks on the History of the Personal Pronouns

[See paradigms, 168, 169, 178–181]

**170a.** There are two possible sources of final *g* in these words, IH 'ég 'I' and the particle IH *-ge/-go/-g\**, which appears in *-γε*, dialectic *-γα*, frequently appended to pronouns.<sup>5</sup> Final *a* in certain forms may be identified with Hitt. *-a* 'que' in *ú-ga* 'ego', *zi-ga* 'tu', but where we find the medial stop doubled (*ú-ug-ga* 'ego', *am-mu-ug-ga am-mu-ug-ga* 'me, mihi'), we should probably assume the IH particle *-g\** appended to the pronoun in final *-g* [54].

**170b.** The vowel *u* of the singular of the first and second persons can be original only in the second person oblique (*tu-uk*, *tu-ga*). From there it spread to the corresponding forms of the first person, and finally into the nominative singular of the first person, where, however, it was fully established by the beginning of our records.

**170c.** The initial vowel of *am-mu-uk*, etc., must correspond with the initial of *émé*; clearly this must represent IE and IH *u* (note the accent of the Greek form and the obvious source of *ε* in *ἐγώ*).

**170d.** The ending of the genitives *am-me-el*, *tu-e-el*, *an-zi-el*, and *šu-me-el* occurs in most genitive singular forms of Hittite pronouns [195, 199]. Its spread to the plural is relatively late. The earlier gen. pl. *šu-me-en-za-an* 'of you' will be discussed in connection with other genitives of this formation [199].

**170e.** The ablatives *am-me-e-da-az* 'from me', *an-zi-ta-az* 'from us', *tu-e-da-az*

<sup>5</sup> See Boisacq, *Dictionnaire Étymologique*, s.v. *γε* and references (1908).

'from you', pl. *šu-me-e-da-az* contain a *d* between the stem and the ablative ending *-az* [198]. This must be the same element that appears in *ἡμεδαπός* 'of our country', *ὑμεδαπός* 'of your country' (IE *ḡsmedḡkwos*, *usmedḡkwos*), Skt. *madīyas* 'my', *tvadīyas* 'thy', *asmadīyas* 'our', *yusmadīyas* 'your', *matkr̥tas* 'done by me', etc.<sup>6</sup> Cf. *ta-me-da-az* 'ab alio'.

**170f.** Hitt. *ú(-i-)e-eš* 'we' represents IH *weys*. It occurs only in early texts. Cf. Goth. *weis* 'we'.

**170g.** Hitt. *an-za-a-aš* 'us' represents IH *'uns* (> *anz*) plus a plural ending. The spread of *an-za-a-aš* to the nominative is parallel to the spread of *am-mu-uk* to the nominative singular. Hitt. *an-zi-el* 'of us' and *an-zi-ta-az* 'from us' are formed from pre-Hitt. *anz* (*an-zé-*) in the same way as *am-me-el* 'of me' and *am-me-e-da-az* 'from me' are formed from pre-Hitt. *am-me*. For apparently singular forms in the plural personal pronouns, cf. Skt. *asmat*, *yusmat*, Aeol. *ἄμμε*, *ἄμμι*, *ὑμμε*, *ὑμμι*; Lat. *nostrī*, *vestrī*.

**170h.** *zi-ik zi-ga* 'tu' contains IH *tē* 'tu' [168]. It is noteworthy that no confusion of this stem with the stem of *tu-uk* 'te, tibi' is known in Hittite. The final consonant comes from IH *'ég* 'ego'. Possibly a contributing factor was inherited *zé-ga* from IH *tē-gb* 'tu quidem', which may have been reinterpreted as *zeg-a* 'tu-que'.

**170i.** *tu-uk* 'te, tibi' contains IH *tw* 'te, tibi'. Its final consonant comes from nom. *zi-ik* 'tu', ultimately from nom. *ú-uk* 'ego'. A contributing factor may have been *tu-ga* 'te quidem' from IH *tw-gb*, which may have been reinterpreted as *tug-a* 'te-que'.

**170j.** *šu-me-e-eš šu-um-me-eš* 'vōs', nom. pl., comes from IH oblique pl. *'ws-smé*, with metathesis of the first syllable and addition of the nominative plural ending of nouns. The rarer use of *šu-me-eš* as an accusative or dative and of *šu-ma-a-aš* as a nominative is similar to the confusion of case forms in the plural of the noun declension.

### Enclitic Personal Pronouns

**171.** *-ta* 'tibi, te' (*nu-ut-ta* 'et te, et tibi', *nu-ut-tak-kán* 'et tibi', *am-mu-uk-ma-wa-at-ta* 'ego autem te', *ut-ni-ya-an-za-aš-ta* [udniyants-ta] 'civis tibi').<sup>6a</sup> The frequent writing with *-tt-* or *-dd-* shows that the word contains Hittite and IH *t*. In the position before *-za*, the reflexive enclitic, *-ta* appears as *-tu-* (*nu-ud-du-za* 'et te sibi, et tibi se', PUTU.ŠI-*wa-ad-du-za-kán* 'rex tibi se'). The only IE enclitic that suggests itself for comparison is Skt. *-te*, Dor. etc. *τοι* 'tibi'. IH *-toy* seems to lie behind the Hittite enclitic possessive *-te-eš*, *-ti-iš* 'tuus' [184]. Should we also assume IH *-tōy* on the basis of nominal datives in *-a* beside Lat. *-ō*, Gk. *-φ*, Skt. *-āya*, etc.? Does Hitt. *-tu-* before *-za* come from earlier *-ta*, or should we assume IH *-tw* beside IE *-tū*? In the latter case, can we trace

<sup>6</sup> Cf. Sturtevant, JAOS 52.6 fn. 16 (1932), and references. Franklin Edgerton's, *Festschrift für Wilhelm Geiger* 100-3 (Leipzig, 1931), explanation of the Sanskrit pronominal forms as due to analogy will not hold for Greek or for Hittite; it is therefore improbable for Sanskrit also, where the vowel distinctions have largely disappeared.

<sup>6a</sup> See Sommer, Bil. 105 f. (1938).

the vowel of Hitt. *-mu* to second person *-tu-*, as in the accented first person pronoun, *ú-uk*, *am-mu-uk*, etc.? Götze-Pedersen, MS 82 f. (1934), hesitate to ascribe the vocalism of Hitt. *-tu-* to dissimilation against the vowel of *-za*. I think we must surely assume an independent origin for *-ta* and *-tu-*. The whole problem is extremely difficult.

**172.** *-mu* 'mihi, me' (*nu-mu* 'et mihi, et me', *na-aš-mu-kán* 'et is me', *nu-wa-ra-aš-mu* 'et is mihi', *ku-wa-at-mu* 'cur mihi?', *li-e-ma-mu-uš-ša-an* 'ne autem mihi...', *nu-mu-za-kán* 'et mihi se', *nu-wa-mu-za* 'et me sibi'). The last two citations remind one of the citations of *-du-za* in the last paragraph, but they make up only a small percentage of the total occurrences of *-mu*. Still it is quite possible that the frequent second person oblique case *-ta* should survive in the face of *tu-uk*, *tu-e-el*, and *-tu-za*. Then the vowel of *-mu* beside *ú-uk*, *am-mu-uk*, and *-tu-za* scarcely presents a problem.

**173.** *-še* 'ei, sibi' (*nu-uš-ši nu-uš-še* 'et ei, et sibi', *ta-aš-še* 'et ei, et sibi', *e-ḫu-ši* 'agedum ei', *ták-ku-uš-ši* 'si ei', *am-mu-uk-ma-aš-ši* 'me autem sibi'). That third person *-še* from IH *-soy* survives in this form, whereas *-me* and *-te* survive only in the Arzawan dialect<sup>7</sup> and in the possessive pronouns *-mi-iš* and *\*-ti-iš*, is not surprising. Such inconcinnities are to be expected everywhere.

**174.** *-na-aš* 'nobis, nos' (*nu-un-na-aš* 'et nobis, et nos', *A.BU.YA-an-na-aš-za* 'pater meus nos sibi'). This seems to come from IH *'nbs*, whereas *an-za-a-aš* 'nobis, nos' comes from IH *'vns-* [170g].

**175.** *-šmaš* 'vos, vobis; eis; sibi' (*nu-uš-ma-aš*, *nu-uš-ma-aš-kán* 'et vobis, et vos; et eis; et sibi'; *nu-uš-ma-ša-at* 'et vos id; et sibi id'; *na-aš-ma-aš-ma-aš* 'aut eis'). This enclitic may function either as accusative or as dative when it belongs to the second person, but in the third person it must apparently always be a dative.<sup>8</sup>

Except for the reflexive *-za*, *-šmaš* and the corresponding possessive pronoun are alone among Hittite and early IE pronouns in referring alike to the second and third persons. The same stem survives in Av. *xšmat* 'a vobis' and *xšmākem* 'vestrum', but the third personal value does not appear in Avestan. We have noticed [168] the element *-sme* in IE personal pronouns. This and the similar particle *-smi-* appear in Skt. *tasmai* 'ei', *tasmín* 'in eo', and the corresponding cases from other adjective pronominal stems. The Sanskrit particle *-sma* is probably connected with these final elements of various pronominal stems and also with the Hittite enclitic pronouns under discussion.

**176.** *-za* 'sibi, se; mihi, me; tibi, te' is citable as *nu-za*, *nu-wa-za-kán*, *nu-mu-za*, *nu-ud-du-za*.<sup>9</sup>

**177.** The possessive enclitics (*-mi-iš* 'my', acc. *-ti-in* 'thy', *-ši-iš* 'his', *-še-ša* 'et eius', neut. *-šum-mi-it*, *-še-me-it* 'eorum, suum; vestrum') are formed by adding standard inflectional endings to the inherited forms of the oblique en-

<sup>7</sup> VBoT. 1.3-5, 8-10.

<sup>8</sup> Sommer, BoSt. 7.52 fn. 10 (1922); Friedrich, Elementarb. 1.26 (1940).

<sup>9</sup> Occasional writings like *nu-uz* for *nu-za* may indicate that the particle actually had no vowel (see Sommer, Bil. 114 fn. 4), but this is not a necessary inference. Cf. ablatives in *-za* or *-az*, etc.

clitic pronouns: IH *-moy* > Hitt. *-me* > *-mi* 'mihi', IH *-toy* > Hitt. *-te* > *-ti*, IH *-soy* > Hitt. *-še* > *-ši*, IH *-smoy* > Hitt. *-šme* > *-šmi*. For the declension of these possessives, see [183–196].

### Paradigms of the Personal Pronouns

Our documents do not enable us to distinguish quite accurately between earlier and later forms. In the following paradigms, forms certainly early<sup>10</sup> are marked with an asterisk.

#### 178. First Singular

nom.	* <i>ú-uk</i> * <i>ú-ga</i> <i>ú-ug-ga</i> , <i>am-mu-uk</i>
acc.-dat.	* <i>am-mu-uk</i> <i>am-mu-ug-ga</i> <i>am-mu-ug-qa</i> , <i>ú-uk</i> <i>ú-ga</i>
gen.	* <i>am-me-el</i> <i>am-mi-el</i>
abl.	<i>am-me-e-da-az</i>

#### 179. First Plural

nom.	* <i>ú-e-eš</i> , <i>an-za-a-aš</i>
acc.-dat.	* <i>an-za-a-aš</i>
gen.	<i>an-zi-el</i>
abl.	<i>an-zi-ta-az</i> <i>an-zi-da-az</i>

#### 180. Second Singular

nom.	* <i>zi-ik</i> * <i>zi-ga</i>
acc.-dat.	* <i>tu-uk</i> * <i>tu-ga</i>
gen.	* <i>tu-(e)-el</i>
abl.	<i>tu-e-da-az</i> <i>tu-e-ta-za</i>

#### 181. Second Plural

nom.	* <i>šu-me-(e)-eš</i> <i>šu-um-me-eš</i> , <i>šu-ma-a-aš</i>
acc.-dat.	* <i>šu-ma-(a)-aš</i> , <i>šu-me-(e)-eš</i>
gen.	* <i>šu-me-en-za-an</i> , <i>šu-me-(e)-el</i>
abl.	<i>šu-me-e-da-az</i>

#### 182. Enclitic Personal Pronouns

1 person sg. oblique	[ <i>nu-</i> ] <i>mu</i> [- <i>kán</i> ], [ <i>ki-e-</i> ] <i>mu</i>
2 person sg. oblique	[ <i>nu-u</i> ] <i>t-ta</i> , [ <i>nu-u</i> ] <i>t-tá</i> [ <i>k-kán</i> ]; [ <i>nu-u</i> ] <i>d-du</i> [- <i>za</i> ]
3 person sg. oblique	[ <i>nu-us-</i> ] <i>ši</i> , [ <i>nu-uš-</i> ] <i>še</i> , [ <i>ta-aš-</i> ] <i>še</i> , [ <i>e-ḫu-</i> ] <i>ši</i> , [ <i>ták-ku-uš-</i> ] <i>ši</i> , [ <i>am-mu-uk-ma-aš-</i> ] <i>ši</i>
1 person pl. oblique	[ <i>nu-un-</i> ] <i>na-aš</i>
2 person pl. oblique	[ <i>nu-u</i> ] <i>š-ma-aš</i> , [ <i>nu-u</i> ] <i>š-ma-š</i> [ <i>a-at</i> ]
3 person pl. oblique	[ <i>na-aš-ma-a</i> ] <i>š-ma-aš</i>

<sup>10</sup> Friedrich, *Elementarb.* 1.26 and references (1940).

## Enclitic Possessive Pronouns

183. *-\*mi-iš* 'meus'

## Singular

nom.	<i>at-ta-aš-mi-iš, ha-lu-ga-tal-aš-mi-iš, DUMU-mi-iš</i>
voc.	(?) <i>iš-ḥa-mi</i> (KUB 31.127.1.1) <sup>11</sup>
acc.	<i>ḥa-lu-ga-tal-la-an-mi-in</i> , <sup>12</sup> <i>tu-uz-zi-ma-an</i>
neut.	<i>LÚ-tar-mi-it, ša-aḥ-ḥa-me-it</i>
gen.	<i>at-ta-aš-ma-aš</i>
dat.	<i>at-ti-mi, ku-uš-ša-ni-mi, kat-ti-mi, kat-te-mi, DUMU-mi; pár-nam-ma</i>

## Plural

nom.	<i>tu-e-ig-ga-aš-mi-e-eš</i>
acc.	<i>LÚKUR-uš-mu-uš</i>
neut.	<i>ud-da-a-ar-me-it</i> , <sup>13</sup> <i>ša-a-ku-wa-me-it</i>
gen.	<i>IR.MEŠ-am-ma-an</i> (KBo. 3.27.10, 15) <sup>14</sup>

184. *-\*ti-iš* 'tuus'

## Singular

nom.	<i>DUMU-aš-ti-iš</i>
acc.	<i>ḥa-lu-ga-tal-la-at-ti-in</i>
neut.	<i>ḥa-tu-ga-a-tar-te-it, ut-tar-te-it</i>
gen.	<i>at-ta-aš-ta-aš, kar-di-aš-ta-aš</i>
dat.	<i>ku-uš-ša-ni-ti, kat-ti-ti</i>
inst.	<i>KAP-la-az-te-it</i>

## Plural

neut.	<i>ša-ku-wa-at-te-it, ku-e ut-tar-te-it</i>
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185. *-\*si-iš* 'eius, suus'

## Singular

nom.	<i>iš-ḥa-aš-ši-iš, iš-ḥa-aš-ši-ša iš-ḥa-aš-še-ša, ad-da-aš-ši-iš-ša</i>
acc.	$\left\{ \begin{array}{l} \text{EN-iš-ši-in} \\ \text{at-ta-aš-ša-an, DUMU-ša-an} \end{array} \right.$
neut.	<i>i-wa-ru-ši-it i-wa-ru-uš-še-it, ku-uš-ša-an-še-it, pi-ra-an-še-it</i>
gen.	<i>an-na-ša-aš, at-ta-aš-ša-ša, gi-im-ra-aš-ša-aš</i>
dat.	<i>an-ni-iš-ši, at-ti-ši, kat-ti-iš-ši, pi-di-iš-ši pi-e-te-ši, pár-na-aš-ša</i>
inst.	<i>šar-ḥu-wa-an-ta-az-še-it, tu-ug-ga-az-še-e-it</i>

<sup>11</sup> Güterbock, JAOS 65.248-57 (1945).<sup>12</sup> Occasionally *at-ta-aš-mi-in* or *at-ta-aš-ma-an*; see Friedrich, Elementarb. 1.28.<sup>13</sup> This and similar forms are singulars in plural value; see Sturtevant, Studies in Honor of Hermann Collitz 16-24 (Baltimore, 1930).<sup>14</sup> Ehelolf, ZA NF 9.174 fn. 2 (1935).

## Plural

nom.	<i>ga-i-na-aš-še-iš, ta-pa-ri-aš-ši-e-eš</i>
acc.	<i>gi-nu-uš-šu-uš, šar-ḫu-wa-an-du-uš-šu-uš</i>
neut.	<i>pár-na-še-e-a<sup>15</sup> pár-na-aš-še-ya,<sup>15</sup> ku-uš-ša-ni-iš-ši-it, ud-da-a-ar-še-it</i>

186. *-\*smis* 'eorum, suus; vester'

## Singular

acc.	<i>ad-da-aš-ma-an</i>
neut.	<i>a-i-šu-me-it a-i-iš-mi-it, e-eš-ḫar-ši-mi-it e-eš-ḫar-šum-mi-it, EGIR-an-ša-me-it, ku-ut-ri-eš-me-it (KUB 29.1.1.22), ud-ni-iš-me-it</i>
dat.	<i>iš-tar-ni-iš-mi iš-tar-ni-šu-um-me, kat-ti-šum-mi, ḫar-ša-ni-iš-mi</i>

## Plural

nom.	<i>a-ri-eš-me-eš</i>
acc.	<i>a-ru-uš-šu-mu-uš</i>
neut.	<i>ša-ku-wa-aš-ma (KBo. 3.34.1.18)</i>
dat.	<i>iš-ḫa-ša-aš-ma-aš-ša-an</i>

## ADJECTIVE AND DEFECTIVE PRONOUNS

*-aš<sup>16</sup>*

187. The commonest of all Hittite pronouns is the enclitic *-aš* 'is'. It occurs only in nominative and accusative of both genders and both numbers. It follows the declension of *a*-stem nouns in general, but the nominative plural masculine is *-e*, *-i*, or (in late texts) *-at*; the neuter singular is *-at*, the neuter plural is *-a*, *-e*, *-i*, or (in late texts) *-at*. This word is always appended to the first word of its clause, where it frequently forms part of a cluster of enclitics; e.g. *tu-uq-qa-aš* 'tibi is', *nam-ma-an* 'tum eum', *am-mu-uk-ma-an* 'ego autem eum', *ki-nu-na-aš-mu-kán* 'nunc is mihi', *na-an-mu-kán* 'et eum mihi'. Sometimes *-aš* and *-at* are repeated, e.g. *na-at-ši-ya-at* = *nu* + *at* + *ši* + *at*.

In Hittite texts of the fourteenth and thirteenth centuries a large proportion of the clauses are introduced by the connective *nu*, which is to be identified with *νν*, Skt. *nu*, Gmc. *nu* 'now', especially as a sentence connective. As we meet it in Hittite texts its function seems merely connective, but its etymology seems appropriate to introduce a logical inference rather than a new item in a narrative.

Less common is the sentence connective *ta*, which, in archaic and archaizing texts, corresponds rather closely to *nu* in the later texts. It occurs both by itself and as a base to which enclitics are attached (*ta-aš* = *na-aš*, *ta-an* = *na-an*). There is also a connective particle *šu*,<sup>17</sup> which is confined to archaic and archaizing texts and is frequently combined with the enclitic *-aš* to form *ša-aš*, etc., but not to form neuters; *ša-at* does not exist. No differences in use from *ta* and *ta-aš* have been observed.

<sup>15</sup> This frequently repeated phrase in the Code means 'et aedes suas'. That is, we have here the inherited form of the neuter plural, without the neuter singular ending *-i*.

<sup>16</sup> Sturtevant, Lang. 15.11-19 (1939); Friedrich, Elementarb. 1.26 f. (1940).

<sup>17</sup> Sommer, Bil. 78 (1938).

If we search for a possible contrast in use between *nu* and *ta*, we shall scarcely find another than to assume that *ta* originally meant 'then, next' and was used particularly in narrative. Whereas the Indo-European languages present an excellent etymon for the connective *nu* and none for the combined *na-aš*, nothing could be neater than the comparison of *ta-an* 'et eum' and *ta-at* 'et id' with IE *tom* and *tod*. While the early texts of Sanskrit, Greek, and Germanic do not confine the *to*-stem to the initial position in the sentence, the pronominal forms do gravitate towards that position, and there they sometimes introduce clusters of enclitics. Particularly significant is the so-called relative use of the article in Homer, in certain later Greek dialects, and in Germanic.

188. Scholars have long seen that the lack of a case ending in Skt. *sa* = *ó* must indicate that the word was once a particle, and the identity of this particle with the rare and obsolescent sentence connective *šu* of early Hittite seems probable. The conglomerate of *šu* with the enclitic pronoun gives *ša-aš*, acc. *ša-an*, etc. We may safely identify it with the defective pronoun seen in early Lat. *sum*, *sam*, and *sōs*. That is to say, we reconstruct IH *so* beside *to*. The analogical change of Hittite inherited \**ša* to *šu* under the influence of the common *nu* is not surprising.<sup>18</sup>

Since the connective IH *so*, without the enclitic pronoun, yielded the nominative singular masculine of the stem *to*- in Proto-IE, one must conclude that the bare particle was peculiarly common in sentences that did not require a pronominal subject, i.e. in sentences in which the subject of the preceding sentence would suffice. As far as we can tell, the connectives IH *to* and *so* both served to introduce a new item in narrative, the former if there was a change of subject, the latter if there was not.<sup>19</sup>

Obviously the vocalism of *na-aš*, etc., in the conglomerate of *nu* plus *-aš* is secondary, and no doubt it originated in early Hittite, when the conglomerate was formed under the influence of *ta-aš*. Probably the acc. pl. masc. *nu-uš* is contraction, and the other forms are analogical new creations.

The enclitic pronoun *-aš* 'is' contains the pronominal stem that appears in Skt. *asya*, Av. *ahe* 'eius'. The reason why this stem is so rare in IE is that it has been supplanted by the conglomerate *tom*, etc. The connective *to* might be followed by other enclitic pronouns, as in Hitt. *ta-aš-še* 'et ei, et sibi'. Such are IH *sme smy*, that appear in Skt. *tasmai* 'ei' and *tasmīn* 'in eo'. The original connectives might occur before any enclitic, and that is no doubt the source of the irregular declension of some IE pronouns.

#### *e-di, e-da-ni* 'ei'

189. This rare defective pronoun has dat. sg. *e-di i-di e-da-ni*, abl. sg. *e-te-iz e-te-za e-di-iz(-za)*, and dat. pl. *e-ta-aš*. The intervocalic *-d-* is probably connected

<sup>18</sup> Cf. *ī-uk* 'I' from IH *\*eg*, *am-mu-uk* 'mihi, me' from IH *\*yme*, and *-mu* 'mihi, me' from IH *\*moy* (?) [170b, c, 171].

<sup>19</sup> We may illustrate with Latin forms except that we shall write *to*, *tos*, *tom*, *so*, *som* for the connectives and pronouns. *Caesar vēnit*, so *vīdit*. *Caesar vēnit*, to *exercitum Ariovistus vīdit*. *Caesar ad Ariovistum vēnit*, to *Caesarem vīdit*. *Caesar ad Ariovistum vēnit*, som *vīdit*.



with that of the ablatives *am-me-e-da-az* 'from me', *tu-e-da-az* 'from you' [170e], *ta-me-da-az* 'from another' [198] and also with the interior *-d-* of *ἡμεδαρὸς* 'of our country', Skt. *madīyas* 'my', etc. In that case we may possibly connect the vowel *e-* with the stem vowel of the enclitic *-aš* 'is' [187].

*a-ši* 'is', *u-ni* 'eum', *e-ni* 'id'<sup>21</sup>

190. The first two of these forms are nom. sg. *aš* 'is' and acc. sg. *un* 'eum' with the particle that appears in *οὐτος-ι* and *τοῦτος-ι*. The neut. sg. and pl. *e-ni i-e-ni* may be an analogical creation on the basis of *u-ni*. What precise connection should be assumed between these words, *e-di* [189], *ši-e-ta-ni*, etc., and the enclitic *-aš* 'is' [187] is not certain. Examples are: dat. *ši-e-ta-ni ud-da-ni-i* 'in this matter' (Götze, Madd. 2.36),<sup>22</sup> *ši-e-da-ni* (BO 3752, col. 7), gen. *ši-i-e-el* (KUB 1.16.2.47), abl. *ši-i-e-iz* (KUB 9.31.1.14). These archaic forms may belong to the conglomerate *ša-aš* [188]. They seem not to conform perfectly to the pattern of the conglomerates *na-aš* and *ta-aš*.

*a-pa-a-aš* 'is'<sup>23</sup>

191. This is regularly used as the more emphatic pronoun of the third person. It corresponds to Lyc. *ebe* 'that', and the adverb *a-pti-ya* 'there' is to be identified with Lat. *ibi* 'there'.

*ka-a-aš* 'hic'

192. This demonstrative goes with *κεῖνος* 'that', Lat. *cedo* 'give here', *hīs-ce*, *cis* 'on this side', Goth. *himma* 'huic'. The Hitt. neut. nom.-acc. sg. *ki-i* (without final *i*) is a trace of the adverb from which the pronoun was derived.

*da-ma-(a-)iš* 'other, second'

193. The etymology is unknown; the one suggested by Pedersen, Hitt. u. IE 51-4 (1938), is very improbable. Perhaps *dam-* is to be compared with *da-a-an* 'iterum'.

*ku-iš* 'quis, qui' and compounds

194. The Hittite interrogative indefinite pronoun is *ku-iš*, declined as an *i*-stem, but with some forms from an *a*-stem. (e.g. nom. pl. *ku-e* : Lat. *quī*, neut. sg. *ku-wa-at* : Lat. *quod*). The relative value of *ku-iš* is thoroughly established in Hittite.

*ku-iš* followed by an enclitic consisting of *-ki*, *-ka*, or *-ku* (probably the unaccented stem of the pronoun) is used as an indefinite pronoun, equivalent to Lat. *quisquam* or *quis*. If the vowel of the pronoun is *-i-*, the enclitic usually takes the form *-ki*, but if the vowel of the pronoun is *-e-*, the enclitic may appear as *-ka*, *-ga*, or *-qa*. *ku-iš-ku* is much less frequent.

*ku-iš* plus *-a* (*ku-iš-ša* *ku-i-ša*) is equivalent to Lat. *quisque*.

<sup>21</sup> Sommer, Bil. 161 and fn. 4 (1938); Pedersen, Hitt. u. IE 59-63 (1938).

<sup>22</sup> Pedersen, Hitt. 66 f. (1938).

<sup>23</sup> Pedersen, Hitt. u. IE 50 f. (1938).

-el, -ela 'ipse'<sup>25</sup>

195. Here are some citations: *ú-ki-el* (2 BoTU 56.4.5) *ú-ki-la* 'ego ipse', *zi-ki-la* 'tu ipse', *a-pa-(a)-ši-la* 'is ipse', *a-pa-ši-el* 'is ipse' (BO 706.1.16), *šu-ma-a-ši-la* 'vos ipsi'.

These enclitics are probably to be compared with the stem formative *el* [170d, 199], particularly in its use to form pronominal genitives.

#### Gender and Number<sup>26</sup>

196. Gender and number in the demonstrative and other adjective pronouns correspond in general to the usage already described [126] for nouns and adjectives. There is one important difference; the nominative-accusative neuter, both singular and plural, often refers to plural antecedents of either gender [2.46-9].

#### Case Forms

197. In Hittite, as in the IE languages, the declension of the adjective pronouns differs considerably from that of the nouns. We discuss first several rather widespread formative elements and then several case endings.

#### Formative -d

198. The most important stem suffix is -d, which appears in the nom.-acc. sg. neut. -at, *a-pa-a-at*, *ku-it*; dat. sg. *e-di i-di e-da-ni*, *ši-e-ta-ni*, *ki-e-da-ni*, *a-pí-da(-ni)*, *ta-me-e-da-ni da-me-da*, *ku-e-da-ni*; abl. sg. *e-te-iz*, *ta-me-da-az*; dat. pl. *ki-e-da-aš*, *a-pí-e-da-aš*, *ta-me-e-da-aš*, *ku-e-da-aš*. We have already observed this formative in the personal pronouns (*am-me-e-da-az*, *tu-e-da-az*, *an-zi-da-az*, etc.). A strong reason for regarding -d in the pronouns as part of the stem is that it appears in the Sanskrit temporal adverbs, such as *tadā* 'then', *yadā* 'when', etc., which may be directly connected with Hittite datives *a-pí-e-da*, *da-me-da*, etc.

#### Formative -l<sup>27</sup>

199. The use of *l* in pronominal inflection is characteristic of the Anatolian languages and also of Etruscan. In Hittite it marks the genitive of the personal pronouns (*am-me-el*, *tu-e-el*, *an-zi-el*, *šu-me-el*) and of the adjective pronouns (*a-pí-e-el*, *ki-e-el*, *ta-ma-e-el*, *ku-e-el*). It also occurs in the dative (*dam-me-lí*, *dam-mi-lí*) and in the enclitic -el, -ela 'ipse' [195]. Such an adjective as Lat. *erilis* (in *erilis fīlius* 'master's son') may preserve a trace of this formative -l.

#### Formative -n<sup>28</sup>

200. The genitive plural of the second person plural, *šu-me-en-za-an*, goes with the genitive plural forms, *ki-in-za-an*, *a-pí-en-za-an*, *dam-me-en-za-an*.

<sup>25</sup> Götze, AM 246 (1933).

<sup>26</sup> Sturtevant, Studies in Honor of Herman Collitz 16-24 (1930); Knut Bergsland, NT 8.266-82 (1936).

<sup>27</sup> Sturtevant, Lang. 1.69-73 (1925); Tadeusz Milewski, RO 8.107 (1930); Paul Kretschmer, Glotta 21.90-2 (1933); Petersen, AJP 58.316 and fn. 15 (1937); Piero Meriggi, Hirt Festschrift. 2.283-90 (1936).

<sup>28</sup> Milewski, RO 8.109 fn. 19 (1930); Benveniste, Hirt Festschrift 2.232 f. (1936); Petersen, AJP 58.318 f. (1937); Pedersen, Hitt. u. IE 56 f. (1938).

Whether we should follow H. Pedersen in finding here the genitive plural ending *-ēm* of Goth. *izē* 'eorum' plus *-sōm* of the genitive plural of other IE pronouns, I cannot say. At any rate, we may plausibly compare the Luwian nominatives plural in *-en-zi* [10].

#### Endings of the Dative Singular

**201.** The pronominal datives are formed from the stem in *-d*, usually with a suffixed *-ani*, which may contain the formative *-n* of the last paragraph, but sometimes with *-i* or *-a*, both of which are familiar in the noun declension. The complex *-da* of *a-pí-e-da*, *da-me-da*, etc., may be identified with *-dā* in Skt. *tadā* 'then', *anyadā* 'at another time', etc. Hitt. *a-be-da-an* is to *a-be-da* 'thither' as *kat-ta-an* is to *kat-ta* 'down'.

#### Endings of the Ablative and Instrumental Singular

**202.** Such ablatives as *ki-e-iz*, *ki-e-za*, *ki-e-iz-za*; *a-pí-e-iz*, *a-pí-e-iz-za*; *ku-e-iz* differ from the usual ablative of noun stems in having the vowel *-e-* rather than *-a-* from IH *-o-* before the ending. Just so we meet instrumentals like *ki-e-it* and *a-pí-it*. We have given a theory of the development of Hittite ablatives and instrumentals from IH *-tos/-ts* [134, 135, 138]; these forms fit into the scheme. If *a-pí-az* (KBo. 2.9.1.18) is not an error, it has been analogically influenced by the nouns.

#### Nominative Plural Masculine and Nominative-Accusative Plural Neuter

**203a.** The pronominal ending *-oi* of the nominative plural masculine of Proto-IE is, in origin, rather a plural stem form; witness Skt. dat.-abl. *tebhyas*, gen. *teṣām*, loc. *teṣu*, dat. *τοῖσιν*. This implies an IH plural stem final *-oy*, which would yield Hitt. *-e* > *-i*. A number of early Hittite forms fit in here: *ne* 'et ii' (KUB 17.5.1.13 = 17.6.1.8), *ku-wa-at-wa-ri* [*kwat-war-i*] 'cur ii' (KBo. 3.1.2.29), *ki-e* 'hi' (KBo. 3.4.1.28, 6.34.3.39), *a-pí-e* 'ii' (KBo. 3.1.2.15, 6.34.1.39, etc.), *ku-e-qa* 'quiquam' (KBo. 5.9.3.1).

The corresponding ending of the nominative-accusative plural neuter is written in the same way in cuneiform (*ne-it-ta* 'et ea tibi'; *ma-a-ni-za* 'si ea sibi'; *ki-e ki-i*; *a-pí-e*; *ta-ma-a-i*; *ku-e ku-i-e*; *ku-e-qa ku-e-ki ku-e-ik-ki*). The only reason for believing that it differed in IH is that the Indo-European languages which distinguish between IE *oi* and *ai/ai/vi* show the correspondent of the latter here. Greek shows *-oi* in the nominative plural masculine of the pronominal declension, but never in the nominative-accusative plural neuter, while *καί* 'and' is probably to be classified here. Similarly, Latin has *hī* and *quī* in the nominative plural masculine, but *haec* and *quae* in the parallel neuter forms.

Neuter plural pronouns sometimes show the ending *-a* of the noun declension (*ta-a* 'et ea'); frequently the neuter singular in *-at* is substituted for a plural of either gender.

#### Accusative Plural Masculine

**203b.** The accusative plural masculine of pronouns, as well as of nouns, usually ends in *-uš*. This represents IH syllabic *-ns*; *ōvras*, Skt. *satas*, Lat. (*prae*)-*sentēs*, from IE *snt̥ns* [63]. It goes with Hitt. *ḫu-u-ma-an-du-uš* 'omnēs'.

IH *-ntns*.

## Paradigms

## 204. -aš 'is' and its conglomerates

## Singular

nom.	-aš	ša-aš	ta-aš	na-aš
acc.	-an	ša-an	ta-an	na-an
neut.	-at		ta-at	na-at

## Plural

nom.	{	-ē še ne nu-wa-ri ku-wa-at-wa-ri
		-at na-at
acc.	{	-uš šu-uš šu-ša tu-(u)uš nu-uš
		-aš ša-aš ta-aš na-aš zi-ga-aš
		-a ta-a
neut.	{	-e, -i ne-it-ta ma-a-ni-za
		-at na-at

## 205. e-di e-da-ni 'ei'

## Singular

dat.	e-di i-di e-da-ni
abl.	e-di-iz(-za) e-te-iz e-te-za

## Plural

dat.	e-ta-aš
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## 206. Defective Pronouns

nom. sg.	a-ši 'is, id'
acc. sg.	u-ni, u-ni-in 'eum'
acc. pl.	u-ni-(i)uš 'eos'
nom.-acc.	neut. e-ni 'id, ea'
gen. sg.	ši-i-e-el 'eius'
dat. sg.	ši-e-ta-ni ši-e-da-ni 'ei'
abl. sg.	ši-i-e-iz 'eo'

## 207. a-pa-a-aš 'is'

## Singular

nom.	a-pa-(a-)aš
acc.	a-pu-(u-)un, a-pa-a-an
neut.	a-pa-(a-)at
gen.	a-pi-(e-)el
dat.	a-pi-e-da(-ni) a-pi-da-ni a-be-da(-an)
abl.	a-pi-(e-)iz a-pi-e-iz-za
inst.	a-pi-it a-pi-e-da-an-da

## Plural

nom.	$\begin{cases} a-pi-e & a-pi-ya \\ a-pu-u-uš \end{cases}$
acc.	$a-pu-(u-)uš$
neut.	$a-pi-e$
gen.	$\begin{cases} a-pi-en-za-an & a-pi-(e)el \\ a-pi-e-da-aš \end{cases}$
dat.	$a-pi-(e)da-aš$

208. *ka-a-aš* 'hic'

## Singular

nom.	<i>ka-a-aš</i>
acc.	<i>ku-u-un</i>
neut.	<i>ki-i ki-e</i>
gen.	<i>ki-(e)el</i>
dat.	<i>ki-e-da-ni(-ya) ki-i-da-ni ki-e-ti</i>
abl.	<i>ki-e-iz(-za) ki-e-za ki-iz-za</i>
inst.	<i>ki-e-iti ki-e-da-an-ta</i>

## Plural

nom.	$\begin{cases} ki-e \\ ku-u-uš & ki-e-uš & ki-e-aš \end{cases}$
acc.	<i>ku-u-uš ka-a-aš ki-e ki-e-uš<sup>29</sup></i>
neut.	<i>ki-e ki-i</i>
gen.	<i>ki-in-za-an ki-e-el</i>
dat.	<i>ki-e-da-aš ki-e-ta-aš</i>
abl.	<i>ki-iz-za</i>

209. *an-ni-iš<sup>30</sup>* 'ille'

nom. sg.	<i>an-ni-iš</i>
abl. sg.	<i>an-na-az an-na-za</i> 'olim'
neut. pl.	<i>an-na-(a)i</i> (KUB 15.12.1.6, 26.88.1.8).

210. *da-ma-a-iš* 'other'

## Singular

nom.	<i>da-ma-a-(i)iš ta-ma-(a)iš dam-ma-iš ta-ma-aš</i>
acc.	<i>da-ma-(a)in ta-ma-(a)in ta-ma-i-in dam-ma-(i)in</i>
neut.	<i>ta-ma-(a)i</i>
gen.	<i>da-me-(e)el ta-me-(e)el ta-me-e-da-aš</i>
dat.	<i>da-me-e-da(-ni) ta-me-e-da(-ni) da-me-e-ta-ni dam-mi-li</i>
abl.	<i>ta-me-da-az ta-me-e-ta-az da-me-da-za</i>

<sup>29</sup> Friedrich, Elementarb. 1.29 (1940).<sup>30</sup> Friedrich, Vertr. 1.151. f. (1926), Elementarb. 1.30 (1940); Pedersen, Hitt. u. IE 63 Anm. (1938).

## Plural

nom.	<i>ta-me-e-eš da-ma-(a)uš</i>
acc.	<i>da-a-ma-uš</i>
neut.	<i>ta-ma-a-i da-ma-a-i</i>

211. *ku-iš* 'quis, qui'

## Singular

nom.	<i>ku-iš</i>
acc.	<i>ku-in</i>
neut.	<i>ku-it, ku-wa-at</i>
gen.	<i>ku-e-el</i>
dat.	<i>ku-e-da-(a)ni</i>
abl.	<i>ku-e-iz(-za)</i>

## Plural

nom.	<i>ku-(i)-e-eš ku-e</i>
acc.	<i>ku-i-e-eš ku-i-uš</i>
neut.	<i>ku-e ku-i-e</i>
dat.	<i>ku-e-da-aš ku-e-ta-aš</i>

212. *ku-iš-ki* 'quisquam, quis'

## Singular

nom.	<i>ku-iš-ki ku-iš-ka ku-iš-ku</i>
acc.	<i>ku-in-ki</i>
neut.	<i>ku-it-ki</i>
gen.	<i>ku-(e)-el-qa ku-(e)-el-ka ku-el-qa</i>
dat.	<i>ku-e-da-ni-(ik-)ki ku-e-da-ni-ik-ka</i>
abl.	<i>ku-e-iz-ka ku-e-iz-qa</i>

## Plural

nom.	<i>ku-i-e-eš-qa</i>
neut.	<i>ku-e-(ik-)ki ku-e-qa</i>

213. *ku-iš-ša* 'quisque'

## Singular

nom.	<i>ku-iš-ša ku-i-ša</i>
acc.	<i>ku-in-na</i>
neut.	<i>ku-i-da ku-it-ta</i>
gen.	<i>ku-e-el-la</i>
dat.	<i>ku-e-da-ni-ya</i>
abl.	<i>ku-e-iz-za ku-e-iz-zi-ya</i>

## Plural

nom.	<i>ku-i-e-ša</i>
acc.	<i>ku-i-uš-ša</i>

## VERBS

## PREFIXES

**214.** Hittite resembles the early Indo-European languages in never forming verb stems by composition in the fashion of nouns. The nearest approach to verbal composition is the use of stereotyped phrases consisting of adverb and verb.<sup>1</sup> By the customary terminology of IE grammar we shall call the adverbial element in such phrases *prefixes*; *separable prefixes* if they are written as separate words.

The principal separable prefixes are these: *a-ap-pa* EGIR-*pa*, *a-ap-pa-an* EGIR-*an* 'back, again, after' (cf. Lyc. *epñ* 'after', *ἀπό* 'from, away', *ἄψ* 'back, again', Skt. *apa* 'off, away', Lat. *ab* 'from, back'); *an-da*, *an-da-an* 'in, within' (cf. Lyc. *ñle* 'within', Lat. *endo* 'in, within'); *ar-ḫa* 'out, away, again';<sup>2</sup> *a-(u-)wa-an* 'apart, off' (cf. Skt. *ava* 'down, off', Lat. *au* 'from'); *ḫa-an-ti(-i)* 'in front, before' (cf. *avri* 'in front', Lat. *ante* 'before'); *kat-ta* GAM, *kat-ta-an* GAM-*an* 'together, down' (cf. *kará* 'together, down', Lat. *co(m)-* 'together, with', Goth. *ga-*); *pí-e* 'secum', only in the phrase *pí-e ḫar-zi* 'carries' (cf. *φί* 'as, like', *ἀμφί* 'on both sides'); *pa-ra-a* 'forth' (cf. *πρό*, Skt. *pra*, Lat. *prō* 'forth'); *pí-ra-an* 'before, forth'; *ša-ra-a* 'up'; *še-ir* 'over' (cf. Lyc. *hri*). Nearly all these words may as well be called adverbs or postpositions; their general similarity to IE verbal prefixes is apparent, and some of the etymologies suggested above are certain. As in some of the Indo-European languages, two of these prefixes are often combined; e.g. *kat-ta-an a-ap-pa*, *a-wa-an ar-ḫa*, *še-ir ar-ḫa*, *a-wa-an kat-ta*, *pí-ra-an kat-ta*, *a-wa-an ša-ra-a*.

**215.** It is less easy to identify the prefixes that have combined more thoroughly with their verbs and are written with them as a single word. In some cases we get a hint from the use of the same element as a separable prefix.

*a-ap-pa* seems to occur in *(a-)ap-pa-a-i*, pl. *ap-pí-ya-an-zi* 'be finished', which may contain the perfect of IE *ei-* 'go' (Skt. *iyāya* = Lat. *iii*).

*pa-ra-a* may be prefixed to the same tense stem in *pa-ra-a-i*, pret. *pa-ra-iš* 'send forth, blow; spit out'.

*pí-e* 'secum' seems to have, as an inseparable prefix, a force of motion away, in view of its frequent contrast<sup>3</sup> to the prefix *u-*, *ú-e-*, *wa-* 'hither'. The contrast

<sup>1</sup> Extensive material was collected and discussed by Leonie Zuntz, *Die hethitischen Ortsadverbien ar-ḫa, pa-ra-a, pí-ra-an* . . . Inaugural dissertation, Munich, 1936.

<sup>2</sup> Cf. Götze-Pedersen, MS 76 f. (1934).

<sup>3</sup> Friedrich, ZA NF 2.52 f. (1925), Vertr. 1.42 fn. 3, 180, 2.146 (1930); Sturtevant, Lang. 7.1-13 (1931), IHL 48 fn. 42 (1942). Cf. Pedersen, Hitt. u. IE 151 (1938).

may be seen in these pairs: *pt-e-da-a-i : ú-da-(a-)i* 'brings', pret. pl. *ú-te-e-ir ú-e-te-ir*; *pt-en-na-i : u-un-na-i* 'drives hither'; *pa-(a-)iz-zi : ú-iz-zi* 'comes'.<sup>4</sup>

The prefix *u-*, *ú-e-*, *wa-* 'hither' appears also in the following words: *ú-i-da-iz-zi*, 1 pl. *ú-e-da-(a-)u-e-ni*, 2 pl. *ú-i-ta-at-te-ni* 'bring'; *ú-e-te-iz-zi*, pl. *ú-e-da-an-zi*, pret. 1 sg. *ú-e-te-nu-un*, 3 sg. *ú-e-te-it*, 3 pl. *ú-e-te-ir* 'build'<sup>5</sup> [220b]; *ú-wa-te-iz-zi*, 1 pl. *ú-wa-te-u-e-ni*, *ú-wa-te-wa-ni*, 2 pl. *ú-wa-te-it-ta-ni*, 3 pl. *ú-wa-da-an-zi*, pret. *ú-wa-te-nu-un*, 3 sg. *ú-wa-te-it*, 3 pl. *ú-wa-te-(e-)ir* 'bring'. With this may be compared Lat. *auferō* 'carry away', *vēscor* 'eat of', Arc. *φο-φλέκοσι* beside Att. *ὀφείλω* 'owe' (a penalty).

Several other inseparable prefixes have been suggested by various scholars, e.g. *em-* : IE *en-* 'in' (*im-mi-ya-(az-)zi* 'mixes'),<sup>6</sup> *ha-* : IE *o-* [75 s.v. *ha-an-na-i*], (*ha-an-na-a-i* 'litigates, decides a lawsuit');<sup>7</sup> *ša-* = IE *sm-δm-* 'together' (*ša-li-(i-)ga* 'lies with'),<sup>8</sup> *ze-* 'through' (*zi-in-na-i*, *zi-en-na-i*, *zi-in-ni-iz-zi*, pl. *zi-in-na-an-zi* 'bring to an end, finish'; *za-a-i*, 2 sg. *za-a-it-ti*, pret. *za-a-(i-)iš* 'pass, transgress').<sup>9</sup>

### REDUPLICATION

**216.** Reduplication is fairly common in the Hittite verb and occurs in the three types most frequent in the IE verb. Most common is the repetition of a complete initial syllable; e.g. *ha-aš-ha-aš-ša-an* 'opened', *ha-aš-ha-aš-šu-ar* 'an opening' : *ha-aš-ša-an-zi* 'they open'; *hu-ul-hu-li-ya-an-te-eš* 'smitten' : *hu-ul-la-a-i* 'smites'; *ku-aš-ku-aš-zi* 'pound, crush' : *ku-en-zi* 'strikes'; *la-aḥ-la-aḥ-ḥi-ya-u-e-ni* 'we take the field', *la-aḥ-la-aḥ-ḥi-eš-ga-u-e-ni* 'we are campaigning', *la-aḥ-la-aḥ-ḥi-nu-e-nu-e-ir* (sic) 'they caused to fight' : *la-aḥ-ḥi-ya-mi* 'I campaign'; *ta-aš-ta-ši-ya-iz-zi* 'whispers, conspires'.

Reduplicating syllables consisting of a single consonant and a single vowel are common, but there is no observable tendency to favor any particular vowel. In a majority of the instances the vowel is the same as the radical vowel. The verbs in suffix *-ske/a-*<sup>10</sup> show a certain affinity for reduplication; but the large majority of them are without reduplication. While several verbs of the *ḥi-*conjugation (original perfects) have reduplication, the overwhelming mass of them do not.

Occasional reduplication belongs alike to all parts of the verbal system. A verb that shows frequent forms both with and without reduplication is *ne-ya-an-zi* 'they lead, turn' = Skt. *nayanti*. Without reduplication we meet:

	Hittite	Sanskrit
2 sg.	<i>ni-ya-si ne-ya-at-ti</i>	3 sg. <i>nayati</i>

<sup>4</sup> The verb in these two compounds seems to be the present stem of IH 'ey- 'go'; i.e. IH *b'e-'eyty* > Hitt. *paizzi* [310]; IH *'u-'eyty* > Hitt. *wezzi* [310].

<sup>5</sup> But cf. Pedersen, Hitt. u. IE 118 (1938).

<sup>6</sup> Sturtevant, HG<sup>2</sup> 213 (1933).

<sup>7</sup> ib.

<sup>8</sup> ib., but cf. George Bolling ap., G. Bonfante, *Revue belge de philologie et d'histoire* 18.390 (1939).

<sup>9</sup> Pedersen, Hitt. u. IE 119, 130, 175, 227 (1938).

<sup>10</sup> Bechtel, *-sk-* 80 f. (1936).



	<i>Hittite</i>	<i>Sanskrit</i>
3 pl.	<i>ne-(e-)ya-an-zi</i>	<i>nayanti</i>
pret. 3 sg.	<i>ne-ya-at ni-ya-at</i>	<i>anayat</i>
midd. 3 sg.	<i>ne-ya-ri ni-ya-ri</i>	<i>nayate</i>
part. pl.	<i>ne-ya-an-te-eš</i>	<i>nayantas</i>
1 sg.	<i>ne-iḥ-ḥi</i>	(cf. perf. 1 sg. <i>ninaya</i> ) <sup>11</sup>
3 sg.	<i>na-a-i</i>	(cf. perf. 3 sg. <i>nināya</i> ) <sup>11</sup>
3 pl. pret.	<i>na-a-ir</i>	(cf. perf. 3 pl. <i>ninyur</i> )
durat.	<i>na-a-iš-ki-nu-un</i>	

With reduplication we find:

	<i>Hittite</i>	<i>Sanskrit</i>
3 sg.	<i>na-an-na-i</i>	perf. <i>nināya</i>
3 pl.	<i>na-an-ni-ya-an-zi</i>	
1 sg. pret.	<i>na-an-na-aḥ-ḥu-un</i>	
3 pl. pret.	<i>na-an-ni-(e-)ir</i>	perf. 3 pl. <i>ninyur</i>
durat.	<i>na-an-ni-eš-ki-iz-zi</i>	

A verb in which reduplication seems to have covered the whole territory is *me-ma-(a-)i* 'says': μέμνημαι 'I remember'.<sup>12</sup> We may cite an almost complete conjugation, as follows:

*me-ma-aḥ-ḥi*, *me-ma-at-ti*, *me-ma-(a-)i* *me-im-ma-i*, *me-mi-u-e-ni*, *me-mi-iš-te-ni*, *me-ma-at-te-ni*, *me-(im-)ma-an-zi*; *me-ma-aḥ-ḥu-un*, *me-mi-iš-ta*, *me-(im-)ma-aš*, *me-mi-(e-)ir*; *me-ma-al-lu*, *me-mi*, *me-ma-a-ū*, *me-mi-iš-tin* *me-mi-eš-tin*, *me-ma-an-du*; *me-mi-iš-ki-mi*, *me-mi-iš-ki-ši*, *me-mi-iš-ki-iz-zi* *me-mi-eš-ki-iz-zi*, etc. ■

This is enough to show that the original irregularities of Proto-IH in regard to reduplication have developed otherwise in Hittite and in the Indo-European languages.

#### THE VERB SYSTEM

**217.** The Hittite verb has two moods (indicative and imperative) and two tenses (present and preterit). There are two secondary conjugations, one causative and the other durative, that can be formed from any verb whose meaning permits. There is a medio-passive voice, characterized by a special set of endings, which may differ in meaning from the active in being passive or reflexive, or in implying some particular interest in the action on the part of the subject. Often it is impossible to detect any difference in meaning between the medio-passive and the active.

For participles, infinitives, and periphrastic conjugations, see [291-7].

This extremely simple system is complicated by many differences in form, which, in general, seem not to imply differences in meaning. There are two conjugations. The *mi*-conjugation (whose first singular ends in *-mi*) corresponds in general to the IE present system. The *ḥi*-conjugation (whose first singular ends in *-ḥi*) corresponds in form to the IE perfect tense [231]. The *mi*-conjugation falls into a number of classes according to the formation of the stem, and

<sup>11</sup> IHL 54 f. (1942).

<sup>12</sup> Benveniste, BSL 33.140 (1932); Couvreur, Hett. H 204 f. (1937); Pedersen, Hitt. u. IE 116 (1938); Sturtevant, Lang. 14.73 (1938), IHL 43 (1942).

the *hi*-conjugation consists of three classes according to the stem final. Variation between two or more of these classes is common. The third class of the *hi*-conjugation is defective and is always supplemented by forms from other classes. Sometimes different stems from a single root differ in meaning (e.g. *a-ri*, 2 pl. *e-ir-te-ni* 'arrive'; *ar-ta-(ri)*, 3 pl. *a-ra-an-ta-(ri)* 'take one's stand'; *a-ra-(a)i*, pret. *a-ra-(a)iš* 'rise, rebel'). More frequently variant forms from a single root appear to be equivalent; e.g. *ú-e-te-iz-zi*, *ú-e-te-nu-un*, *ú-e-da-aḥ-ḥu-un*, *ú-e-du-me-en* 'build'; *wa-ar-ši wa-ar-aš-zi wa-ar-še-e-iz-zi wa-ar-ši-ya-(az-)zi* 'mullet'; *ú-e-ik-zi*, *ú-wa-ak-ki-iz-zi ú-e-wa-ak-ki* 'asks, demands'; imper. 2 pl. *ú-e-eš-tin*, midd. 3 pl. *ú-e-eš-ša-an-ta*, *wa-aš-še-iz-zi*, *wa-aš-ši-e-iz-zi*, *wa-aš-ši-ya-az-zi*, *wa-aš-ša-an-zi* 'clothe, put on (clothes)'.

### The *mi*-conjugation

**218.** The Hittite *mi*-conjugation corresponds to the IE present system with some items that in IE were worked into the aorist system. It consists of several conjugation classes differing from one another in the formation of the stem.

There is also, as in IE, a distinction between thematic and non-thematic conjugation which cuts across the division into classes of the *mi*-conjugation. The primary verbs [219–21] were from the start partly thematic and partly non-thematic.

### Primary Verbs

**219.** From ablaut bases of the type of IH *deyketey* both the IE languages and Hittite derive three formations, which represent respectively IH *dékty*, *dykétý*, and *déykety* (Sanskrit root class, accented *a*-class, and unaccented *a*-class). The third class, with full vowels in successive syllables, must have resulted from contamination of the other two, but in the Indo-European languages it is the most frequent of all, and increasingly so with the passage of time. In Hittite, however, the first type is more frequent than the other two combined. In the following discussion the type IH *dékty* (including all verbs with full grade of the root and with no suffix) is treated under the caption 'Root Verbs of the *mi*-Conjugation.' The rarer types, IH *dykétý* and *déykety*, are grouped together under the caption 'Primary Thematic Verbs.'

### Root Verbs of the *mi*-Conjugation

**220a.** A number of non-thematic verbs with radical *e* preserve the alternation between full grade in the singular and reduced or zero grade in the plural, namely, *e-eš-zi* : *a-ša-an-zi* 'be'; *e-it-mi*, *e-(iz-)za-az-zi e-iz-zi* : *a-tu-e-ni*, *az-za-aš-te-ni*, *a-da-an-zi* 'eat'; *ḥu-(e)ik-zi*<sup>13</sup> : *ḥu-(u)kán-zi* 'set free from incantation'; *ku-e-mi*, *ku-e-ši*, *ku-en-zi* : *ku-na-an-zi* 'strike'; *še-eš-mi*, *še-eš-zi* : *ša-ša-an-zi* 'sleep'; *ú-e-iḥ-zi*, *ú-e-ḥu-un* : *wa-ḥa-an-zi*, *wa-ḥa-an-du* 'turn'. Probably the full grade form of *ku-(e)ir-zi*, *ku-e-ir-ta* : *ku-ra-an-zi* 'cut' has been restored by analogy after the regular change of *e* to *a* before *r* and a consonant [56].

Phonetic law has obliterated ablaut in many verbs with original *er* plus

<sup>13</sup> In this verb analogical forms like *ḥu-uk-mi* and *ḥu-uk-zi* are fairly common.

consonant [56]; e.g. *ḥar-zi* : *ḥar-kán-zi* 'have'; *ḥar-ak-zi* : *ḥar-ak-te-ni*, *ḥar-ki-e-ir* 'be destroyed'; *ḥar-ap-zi* : *ḥar-pa-(a-)an-zi* 'join'; *kar-ap-zi* : *kar-ap-te-ni*, *kar-(ap-)pa-an-zi* 'raise, muster'; pret. *mar-ak-ta* : *mar-kán-zi* 'cut up'; pret. *iš-pár-za-aš-ta* : *iš-pár-te-ir* 'escape'; pret. *tar-aḥ-ḥu-un*, 3 sg. *tar-aḥ-ta* : *tar-aḥ-ḥi-ir* 'be powerful'; *wa-ar-ap-zi* : *wa-ar-pa-an-zi* 'bathe'. Similarly IH *ew* and *w* before a consonant yield the same result in Hittite; we cannot expect to see ablaut in such verbs as *lu-uk-zi* 'kindle', *u-up-zi* 'rise' (of the sun), or the causative verbs like *ar-nu-(uz-)zi* 'bring'.

These and other verbs in which ablaut was necessarily lost assisted in leveling the vocalism elsewhere. Thus we find only the full grade of *ḥu-i-iš-zi* 'lives', except for occasional forms with zero grade in some derivatives (*ḥu-u-uš-wa-an-du-uš* 'the living'—KBo. 3.55.1.8; <sup>GIS</sup>*ḥu-u-šu-uš* 'mirrors'—KUB 29.1.2.7), or of *ú-(e)-ik-zi*, pl. *ú-e-kán-zi* 'ask, demand'. Even the verbs listed above as preserving their ablaut show forms with vowel leveling; e.g. *e-šu-(u-)en* 'we were', *ku-e-u-en* 'we struck', *še-ša-an-zi* 'they sleep'. Hitt. *te-iz-zi* 'he speaks' probably comes from IH *deyty*,<sup>14</sup> and if so, we should expect *ti-* in the plural; we find *te-e-te-ni*. Encroachment of the reduced or zero grade of the plural upon the singular is to be recognized in *ḥu-uk-zi* beside *ḥu-e-ik-zi* 'frees from witchcraft', *ú-uḥ-zi* and *wa-aḥ-zi* beside *ú-e-iḥ-zi* 'turns'. The vocalism of *mi-ir-zi* (IBoT 1.36.1.53), pret. *me-ir-ta*, imper. *me-ir-du*, part. *me-ir-ra-an-da* seems to depend upon forms in which a vowel followed the root, although only one such is citable; perhaps the contrasting verb *ḥu-i-iš-zi* 'lives' exerted some influence (cf. Lat. *mortuus* after *vīvus*).

*pa-iz-zi* 'goes' demands separate treatment. Contraction of the prefix IH *b'e-* (whence Hitt. *pí-e* [214, 215]) with the IH root *ey-* yielded IH *b'ēymy*, *b'ēysy*, *b'ēyty*, whence regularly Hitt. *pa-(a-)i-mi*, *pa-(a-)i-ši*, *pa-iz-zi*. Similarly the imperfect *b'ēyt* yielded Hitt. pret. 3 sg. *pa-it*. In first and second plural we should expect \**pí-e-u-e-ni* from IH *b'e-yweni* (with change of the short diphthong *-ey-* to Hitt. *-e-*), but the long diphthong of the singular has spread to these persons, giving Hitt. *pa-(a-)i-u-e-ni*, *pa-it-te-ni*, *pa-a-i-ú-en*. The IH 3 pl. pres. *b'e-yenty* became pre-Hitt. *pí-en-zi*, whence Hitt. *pa-(a-)an-zi*, when *-anzi* spread at the expense of *-enzi* [251]. The imperf. 1 sg. *b'ēym* < *b'e-eym* regularly [63] yielded Hitt. *pa-a-un*, and *pa-a-ir* is what we should expect in the preterit third plural, although it is difficult to say what IH had here.

**220b.** Among the roots with long radical vowel we find ablaut in the following.

*e-ku-(uz-)zi* : *a-ku-wa-an-zi* 'drink, give to drink'; cf. OIcel. *ǣger* 'sea' : Lat. *aqua* 'water'. The reduced grade *a-* is preserved in the common 3 pl. pres., 1 pl. *a-ku-e-ni*, 3 pl. imper. *a-ku-wa-an-du*, infin. *a-ku-(wa-)an-na*, and *a-ku-wa-an-na-aš*. The full grade *e-* has encroached in *e-ku-ut-te-ni*, *e-ku-e-en*, *e-ku-(i-e-)ir*, and *e-ku-ut-tin*. The durative formation shows reduced grade and also the *k* written double, which oddly enough never appears in the simple verb; a typical form is *ak-ku-uš-ki-iz-zi* 'he is drinking'.

*e-ip-zi* : *ap-pa-an-zi* 'take'; cf. Lat. *co-ēpī* : *apīscor*. Initial *a-* occurs only in

<sup>14</sup> IH *deyety* would yield the same result, but thematic primary verbs are less common in Hittite.

third plural present, third plural imperative, infinitive (*a-ap-pa-an-na*), and participle; but the durative shows *ap-pí-iš-ki-iz-zi*, etc.

*e-eš-zi* : *a-ša-an-zi* 'seat, sit'; cf. *ḡṣṣai*, Skt. *āste*. There are numerous forms with *a-* where *e-* is to be expected, and with *e-* where *a-* is to be expected. There are also middle forms with *e-*, as in Greek. Should we assume two originally distinct roots?

*ú-e-te-iz-zi* : *ú-e-da-an-zi* 'build' < IH *we-d'e'ti* : *we-d'o'nti* 'set hither, establish' [215].

If this etymology is correct, the word did not originally contain a long radical vowel; the IE root *dhē-* comes from IH *d'e'-*; but we have no means of knowing how early the first laryngeal was lost in Hittite.<sup>15</sup>

### Primary Thematic Verbs

221. Thematic verbs without suffix, frequent in the Indo-European languages, are strangely few in Hittite. In many verbs we lack sufficient evidence to decide upon the conjugation class. *li-(ip-)pa-an-zi* 'they smear' may go with Skt. *limpāti* or it may correspond to IE *léip-* or *léipe-*; *te-iz-zi*, 2 pl. *te-e-te-ni*, pret. *te-it* 'speak, say' may come from IH *déyty* or *déyety*, or from *d'é'yty* or *d'é'yety*<sup>16</sup> (: IE *dhē-* 'place').

The type IH *dykēty* is to be recognized in *wa-aš-še-iz-zi* 'clothe', IH *wesēty*. The corresponding root class verb survives, with full grade generalized, in *ú-e-eš-tin*. Probably there is a parallel instance in *ú-wa-ak-ki-iz-zi* beside *ú-e-ik-zi*, pl. *ú-e-kán-zi* 'ask, beg'.

The defective conjugation of *da-a-i* 'place' (*ṛiṭṣi*, Skt. *dadhāti*) is supplemented by forms from a thematic stem in *-iya/e-* (1 pl. *ti-(i)ya-u-e-ni*, 3 pl. *ti-(ya)-an-zi*, and pret. 1 pl. *ti-(i)ya-u-en*, 3 pl. *ti-(i)-e-ir*). It is interesting that a diphthongal stem appears also in Sanskrit in the aorist forms *adhāyi* and *adhātām* (RV).<sup>17</sup> There are also fullfledged *yo*-stems from this root in various languages: Skt. passive *dhāyāte*, Lett. *dēju dēt* 'lay eggs', OCS *děja* 'lay'; it is not surprising that the Hittite *yo*-stem is not confined to the places where it suppletes *da-a-i*.

Just so the other verbs of the third class of the *hi*-conjugation are suppleted. Beside *iš-ḥa-a-i*, pret. *iš-ḥi-iḥ-ḥu-un* 'bind' we have 2 pl. *iš-ḥi-ya-at-te-e-ni*, 3 pl. *iš-ḥi-(ya)-an-zi*, pret. 1 sg. *iš-ḥi-ya-nu-un*, 3 pl. *iš-ḥi-i-e-ir* (cf. *siṣāya* 'be bound'); beside *iš-pa-a-i* 'sate oneself' there is an equivalent verb, 3 pl. *iš-pi-ya-an-zi*, pret. *iš-pi-i-e-ir*, imper. *iš-pi-ya*, *iš-pi-ya-an-du* (cf. Skt. *sphāyati* 'fatten'); beside *pa-a-i*, 1 sg. *pí-iḥ-ḥi*, pret. *pa-(a)iš*, *pí-iḥ-ḥu-un* 'give' there is *pí-(ya)-an-zi* *pí-e-an-zi*, *pí-i-ya-u-e-ni*, *pí-ya-u-e-en*, *pí-i-e-ir*, a verb with a nearly complete conjugation.

The type IH *déykety*, so common in the Indo-European languages, I can plausibly identify in only a few Hittite words. Skt. *náyati* 'lead' appears in 2

<sup>15</sup> In favor of this etymology is the mixture of *mi*-conjugation and *hi*-conjugation forms in the conjugation. Basic in this compound verb is the *mi*-conjugation, but the common verb *da-a-i* 'place' was obviously akin. Probably *pí-e-ḥu-te-iz-zi* 'lead, conduct' is another compound of IH *d'e'-*.

<sup>16</sup> See IHL 55 (1942).

<sup>17</sup> See IHL 55 (1942); cf. also OCS. *děja* 'I lay, I say'.

sg. *ni-ya-ši*, 1 pl. *ne-ya-u-e-ni*, 3 pl. *ne-(e)-ya-an-zi*, pret. *ne-ya-at ni-ya-at ne-e-a-at*, imper. *ne-ya-(at)-tin*, part. *ne-(ya)-an-za*. From the stem *weya-* 'drive, send' we get the forms: *u-i-ya-mi*, *u-i-ya-ši*, *u-i-ya-(az)zi u-e-iz-zi*, *u-i-ya-an-zi*, *u-(i)-ya-nu-un*, *u-i-ya-at*, *u-i-e-ir*, *u-i-ya*, *u-i-ya-ad-du*, *u-i-ya-at-tin*; this is cognate with Skt. root pres. *veti*, *vyanti*, and Lith. *vejù*, *výti* 'drive away'. The verb for 'mix' is puzzling; the present tense shows *im-mi-ya-mi*, *im-me-at-ti*, *im-mi-ya-(az)zi*, *im-mi-(ya)-an-zi i-im-mi-ya-an-zi im-me-ya-an-zi*, and the preterit, *i-mi-e-nu-un*.

It seems probable that the type *déykety* was not inherited by Hittite as such; but it could be created by analogy at any moment.

#### Derivative Verbs

*-iya/e*<sup>18</sup>

**222.** The suffix *iya* forms verbs directly from roots, from verb stems already characterized, and from noun and adjective stems. The suffix is very common and it is not always easy to distinguish among the three processes named. Here we shall merely list some easily analyzed derivatives of each kind.

*-iya/e* seems to be a primary suffix in *iš-ki-ya-iz-zi*, part. *iš-ki-ya-an* 'anoint' beside *iš-ga-a-mi*, *iš-ki-iz-zi*, *iš-kán-zi*, *iš-ki-ir*, *iš-ki*, *iš-ki-id-du*; *me-mi-(ya)-an-zi*, part. *me-mi-an*, infin. *me-mi-ya-u-wa-an-zi* 'say' beside *me-ma-aḫ-ḫi*, *me-ma-(a)-i*; *iš-pár-ri-ya-az-zi* *iš-pár-ri-iz-zi*, verb. n. *iš-pár-ri-ya-u-wa-ar* 'spread, trample' beside *iš-pa-a-ri*, *iš-pár-ra-an-zi* (cf.  $\sigma\pi\epsilon\iota\omega$ ); *da-li-ya-zi*, *da-(a)-li-ya-mi* 'leave, let go' beside *ta-la-a-i*, *da-a-la-aḫ-ḫi*; *da-ri-ya-nu-un*, *da-a-ri-ya-at*, part. *da-(a)-ri-ya-an-te-eš* 'invoke, summon' beside *da-ra-an-zi ta-ra-an-zi*, part. *da-ra-an-te-eš* 'declare, promise'.

Suffix *-iya/e* is appended to a stem already characterized in *še-eš-ki-ya-aḫ-ḫu-ut* *še-eš-ki-aḫ-ḫu-ti* 'sleep!' beside *še-eš-zi* and *še-eš-ki-iz-zi*. Verbs with suffix *na* [235] are frequently extended by suffix *iya*; e.g. *ku-en-ni-ya-an-za* beside 1 pl. *ku-en-nu-um-me-e-ni*, 3 pl. *ku-en-na-an-zi* 'smite'; *par-ši-ya-an-ni-an-zi* 'they divide' beside *pár-ši-ya-an-na-(a)-i*, pl. *pár-ši-ya-an-na-an-zi*; *šu-ú-ni-ya-zi* *šu-ú-ni-iz-zi*, pl. *šu-(ú)-ni-ya-an-zi* *šu-un-ni-an-zi* 'fill' beside *šu-un-na-(a)-i*, pl. *šu-un-na-an-zi*; *wa-al-ḫa-an-ni-an-zi* 'they beat' beside *wa-al-ḫa-an-na-i* 'beats'; *i-ya-an-ni-(ya)-an-zi*, pret. *i-ya-an-ni-ya-nu-un* 'go, march' beside *i-ya-an-na-i*.

Denominatives form the largest group of verbs with suffix *iya*. A common meaning is 'be what the primitive denotes'. In the following list some derivatives of *i*-stem nouns are included: *ir-ma-li-ya-at-ta-at* 'was ill' from *ir-ma-la-aš* 'ill'; *ḫar-nam-ni-ya-az-zi*, pret. *ḫar-nam-ni-ya-at* 'ferment' from *ḫar-nam-mar* *ḫa-ar-na-am-mar* 'yeast'; *ḫu-(u)-la-(a)-li-(ya)-zi* *ḫu-u-la-li-i-e-iz-zi* 'wind' from *ḫu-(u)-la-(a)-li* 'distaff; band'; *iš-ḫa-mi-(ya)-an-zi* 'they sing' from acc. *iš-ḫa-ma-in* 'song'; midd. 3 sg. *ka-ru-ú-i-li-(ya)-at-ta* 'he is as before' from *ka-ru-ú-i-li-iš* 'former'; *ki-iš-ta-an-zi-at-ta-at* 'was hungry' from the noun whose instrumental is *ki-iš-ta-an-ti-it* 'hunger'; *ku-u-ru-ri-e-it* 'was hostile' from *ku-(u)-ru-ur* 'hostility, hostile' [114]; *ku-uš-ša-ni-ya-zi* *ku-uš-ša-ni-i-e-iz-zi* 'hire' from *ku-uš-ša-an* 'pay, wages'; *la-aḫ-ḫi-ya-mi*, 2 sg. *la-aḫ-ḫi-ya-ši* 'make a campaign' from dat. *la-aḫ-ḫa*

<sup>18</sup> Götze, *Madd.* 97-100 (1928); Bechtel, *-sk-* 16-18 (1936).

'campaign'; *lam-ni-ya-an-zi*, pret. 3 sg. *lam-ni-ya-at* 'name, call by name' from *la-a-ma-an*, inst. *lam-ni-it* 'a name'; *la-(a)-az-zi-at-ta-(ri)*, SIG<sub>5</sub>-*at-ta-ri* 'be favorable,' from *la-az-za-iš* 'well being' or from SIG<sub>5</sub>-*iš* 'favorable'; midd. pret. 3 sg. *pa-an-ga-ri-ya-at-ta-ti* 'was prevalent' from the stem of *pa-an-ga-ri-it* 'in mass, in numbers'; part. *ša-an-ku-ni-ya-an-za* from <sup>LT</sup>*ša-an-ku-un-ni-iš* 'priest'; *šu-ul-li-ya-zi* 'quarrels' from acc. *šu-ul-li-in* 'a quarrel'; *šu-up-pi-ya-aḥ-ḥu-ut* 'be clean!' from *šu-up-pi-iš* 'clean'; *tu-uz-zi-ya-nu-un* 'I encamped' from *tu-uz-zi-iš* 'army'; *ur-ki-ya-iz-zi* 'trace, find' from acc. *u-ur-ki-in*, pl. *u-ur-ki-eš* 'a trace'; *ut-ta-ni-ya-at-tin* 'you conjured' from *ut-tar ud-da-na-aš* 'magic spell'.

-a(e)-<sup>19</sup>

223. Goetze long ago noticed a remarkable tendency for these verbs to have a stem ending in *-i-* in those positions where the IE thematic verbs had *-e-*, but not elsewhere. For a time it was customary to refer to them as the *ai*-verbs of the *mi*-conjugation. It is noteworthy, however, that in the second singular preterit, where it is possible to write either *-iš* or *-eš*, we frequently find *-eš* (e.g. *ḫa-at-ra-a-eš* 'you wrote') and that occasionally we have a vowel *e* inserted in other forms (e.g. *mu-ka-e-it-te-en* 'ye implored'—KBo. 3.43.2.9); it seems advisable to speak of them as the *a(e)*-verbs of the *mi*-conjugation in order to avoid confusion with the *ai*-verbs of the *ḫi*-conjugation [238].

Since the Greek denominatives in *-οω* seem to be later than the verbs in *-αω*<sup>20</sup> and since the type does not clearly appear outside of Greek, we must compare the Hittite denominatives in *-a(e)-* rather with the Greek verbs in *-αω* such as *τιμάω*.<sup>21</sup>

It is a familiar observation that *-āyo-* denominatives are freely formed from *o*-stems as well as from *ā*-stems (e.g. Skt. *açvāyate* 'seek for horses'). The simplest explanation of this fact is the assumption of loss of a laryngeal suffix; in this case the IH collective suffix *-h*, which gave rise to the neuter plural ending *-a* of Hittite and *-ā/ə* of Proto-IE [76]. Here are a few words in which the formation may have been inherited.

*a-ru-(ú-)wa-(a-)iz-zi*, pl. *a-ru-wa-a-an-zi* *ar-wa-an-zi* 'bow down': *ἀράομαι* 'pray, curse' beside *ἀρά* 'prayer'; cf. Arc. *κάταρρος* 'accursed'. The Hittite word seems to be cognate with the Greek verb, and its conjugation is that of a denominative; but no Hittite cognate of *ἀρά* has yet been discovered.

*tar-ma-a-mi*, 3 sg. *tar-ma-iz-zi*, 1 pl. *tar-ma-a-u-e-ni*, 3 pl. *tar-ma-a-an-zi* 'fasten, fix, blockade': Lat. *termino* 'delimit' from *termen*, pl. *termina* 'boundary stone'. The Hittite comes from *\*termn-*, while the Latin shows reduced grade of the second syllable (IE *termn-*).

*mi-ta-iz-zi*, pret. *mi-ta-a-nu-un* 'fasten, fix' or the like (the verb is combined

<sup>19</sup> Götze, *Madd.* 81-100 (1928); Sturtevant, *Lang.* 5.8-14 (1929), 14.245-7 (1938); Götze, *Tunn.* 44 fn. 132 (1938); Sturtevant, *Lang.* 24.259-61 (1948).

<sup>20</sup> Eduard Schwyzer, *Griechisch Grammatik* 727, 731 (Munich, 1939).

<sup>21</sup> There is another group of Hittite verbs that corresponds with Greek denominatives in *-αω*; but they are clearly marked off in Hittite by the suffix *-aḥḥ-* and factitive meaning, and in Greek by the factitive meaning (e.g. *φαιβᾶν* 'make bright' from *φαιβος* 'bright') [224].

with *tar-ma-iz-zi* in such a way that the meaning must be similar) : Lat. *modus* 'measure, boundary',<sup>21a</sup> Umbr. *mers* 'ius', Osc. *meddīss* 'meddix'.

*šu-(ú)wa-(a)iz-zi* *šu-wa-a-i-e-iz-zi*, pl. *šu-u-wa-an-zi* 'press out, fill, give as security' : Skt. *savas* 'extraction of soma'.

All these Hittite verbs are conjugated like numerous other denominatives; and the suggested etymologies seem attractive. For the present we cannot safely maintain that these verbs were formed in Hittite times; but there seems to be no difficulty in supposing that the verbs were inherited, in spite of the loss of the basic nouns.<sup>22</sup>

**223a.** Here is a part of the material upon which is based the conclusion that Hitt. *-a(e)-* is a denominative suffix: *ar-ša-a-iz-zi* 'plant (a field)' : *ar-ši-iš*, acc. *ar-ši-in* 'field'; *ha-ap-pa-ra-iz-zi*, pl. *ha-ap-pár-ra-an-zi*, pret. *ha-ap-pa-ra-a-it* 'trade, sell' : *ha-(a)ap-pár* 'price, business transaction'; pret. *hu-iš-wa-it* 'be alive' : neut. *hu-u-e-šu* 'alive, raw'; *ir-ha-(a)iz-zi*, pl. *ir-ha-(a)an-zi* 'finish' : *ir-ha-(a)aš* 'boundary'; *ga-an-ga-da-a-iz-zi* *ga-an-ga-ta-a-iz-zi*, part. *ga-an-ga-ta-a-an-za* 'offer sacrificial gruel' : *ga-an-ga-(a)ti* 'sacrificial gruel'; 2 sg. *gi-en-zu-wa-i-ši* pret. *gi-en-zu-wa-it* 'be friendly' : *gi-en-zu gi-in-zu* 'friendship'; *ku-(u)ut-ru-wa-a-iz-zi* 'provide witness' : pl. *ku-ut-ru-e-eš* 'witnesses'; *lu-lu-wa-it* 'cause to prosper' : *lu-ú-lu lu-lu-ú* 'prosperity'; *pár-ku-wa-an-zi* 'be pure' : *pár-ku-(i)-iš*, acc. *pár-ku-in* 'pure'; *ša-(a)ru-wa-(a)it* *šar-wa-it* 'plunder, sack' : *ša-a-ru* 'booty'; pret. 3 sg. *šu-ul-la-a-it* 'quarrel' : *šu-ul-li-in* 'a quarrel'; *ták-šu-la-(a)iz-zi*, pret. *ták-šu-la-a-eš*, *ták-šu-la-(a)it*, part. *ták-šu-la-a-an-za* 'be at peace' : *ták-šu-(ú)ul* 'peace, peaceful'; *wa-ar-ra-a-iz-zi*, pret. *wa-ar-ra-it* 'come to the rescue, help' : *wa-ar-ri-iš* 'help, protection'.

There remain a number of verbs in *-a(e)-* for which no noun is citable as a source. Since, however, no other source is known for any verb of this type, it seems safe to assume denominative origin for a verb like pret. *iš-ta-an-ta-it* *iš-ta-an-da-a-it*, 1 sg. *iš-ta-an-ta-nu-un* 'tarry, delay'.

**223b.** There is a tendency for denominatives in *-a(e)-* to be transferred to the regular thematic conjugation. Any form with original stem vowel *o* might serve as a switch to effect the change. *hu-iš-wa-it* 'was alive' has been cited; alongside this was the frequent part. *hu-iš-wa-an-za* and thence the pres. 3 sg. *hu-u-iš-šu-u-iz-zi* and pret. 2 pl. *hu-iš-ú-e-te-en*. By a similar process originated the regular *ar-še-iz-zi* 'plants' from the denominative *ar-ša-a-iz-zi*; *kap-pu-u-iz-zi* 'counts' from denominative *kap-pu-u-wa-it* by way of 3 pl. *kap-pu-u-an-zi*; *šu-ul-li-it* 'quarreled' from equivalent *šu-ul-la-a-it* by way of 1 sg. *šu-ul-la-a-nu-un*; *šu-ú-(i)iz-zi* 'press out, give as security' from *šu-wa-a-iz-zi* by way of 3 pl. *šu-u-wa-an-zi*.

-aḫḫ-<sup>23</sup>

**224.** Not all the IE denominatives in *-ā-* can be compared with the Hittite denominatives in *-a(e)-*. There is a clearly marked group that may be typified

<sup>21a</sup> My former suggestion that the Hittite verb be connected with Lat. *mēta* 'goal post' is to be rejected since we do not find the spelling with *-tt-*. A. Ernout and Antoine Meillet, *Dictionnaire étymologique de la langue latine*, Paris, 1939, trace Lat. *modus* to pre-Italic \**medos* (cf. *scelus* : *scelestus*).

<sup>22</sup> Of course, one or another of the nouns may yet turn up in Hittite.

<sup>23</sup> Friedrich, ZA NF 1.16 f. (1924); Kuryłowicz, Symb. Gramm. 102 (1927); Sturtevant, Lang. 7.120-4 (1931), 14.239-44 (1938), IHL 38 f. (1942).



by Lat. *novāre* 'renew' from *novus* 'new' and *veāv* 'plow up (fallow land)' from *véos* 'new' beside Hitt. pret. *ne-wa-aḥ-ḫu-un*, *ne-wa-aḥ-ḫi-ir*, *ne-wa-aḥ-ḫa-an-du*, part. *ne-u-wa-aḥ-ḫa-an*, from the adjective \**ne-wa-aš* 'new' seen in inst. *ne-e-u-it*.<sup>24</sup>

It is noteworthy that the verb just cited does not lend itself to analysis as a verb formed from a noun in final *ā* by means of suffix *yo*; there is no trace of IH *y* after the suffix *ḫḫ*. Here, then we have the source, or one source of the type of Aeol. Gk. *ῥῑμᾶμι*, pl. *ῥῑμαμεν*, beside *ῥῑμᾶ*, which Brugmann<sup>25</sup> contrasts with Att. etc. *ῥῑμῶ* and with Skt. *ṛṭanāyāmi* : *ṛṭanā* 'battle'. As far as I know there is no trace of the type without suffix *yo/e-* in Sanskrit, or of the factitive meaning which characterizes the Hittite verbs in suffix *-aḫḫ*. In the Indo-European languages the confusion of the *ā*-verbs and the *āyo/e-* verbs seems pretty thorough, although the factitive meaning distinguishes a number of verbs in various languages, and Brugmann tried to pick out a few traces of the old formal distinction.

Further examples of denominatives in *-aḫḫ* (IH *-ex-*) are: 3 sg. *a-ra-(u)-wa-aḫ-ḫi*, pret. *a-ra-u-wa-aḫ-ḫu-un*, 3 pl. *a-ra-wa-aḫ-ḫi-ir*, part. *a-ra-wa-aḫ-ḫa-an* 'set free' from *a-ra-u-(wa)-aš*, pl. *a-ra-(a)-u-e-eš* 'free'; *i-da-la-u-wa-aḫ-mi*, *i-da-la-wa-aḫ-ti*, *i-da-la-wa-aḫ-zi* *ḪUL-la-wa-aḫ-zi*, pret. *ḪUL-aḫ-ḫu-un*, part. *i-da-la-wa-aḫ-ḫa-an-te-eš* 'injure' : *i-da-(a)-lu-uš* 'bad'; 2 pl. *kat-te-ir-ra-aḫ-te-e-ni*, pret. *kat-te-ir-ra-aḫ-ta*, *kat-te-ir-ra-aḫ-ḫi-ir* 'make lower' : *kat-te-ir-ra-aš* 'lower'; SIG<sub>5</sub>-*aḫ-zi*, pl. SIG<sub>5</sub>-*aḫ-ḫa-an-zi* 'make favorable' : SIG<sub>5</sub>-*iš* 'favorable'; imper. *ša-ne-iz-zi-ya-aḫ* 'sate yourself' : *ša-ne-iz-zi-iš*;<sup>26</sup> 2 pl. *ša-ra-a-az-zi-ya-aḫ-te-ni*, pret. *ša-ra-a-(az)-zi-ya-aḫ-ta*, imper. 3 pl. *ša-ra-az-zi-(ya)-aḫ-ḫa-an-du* 'make higher' : *ša-ra-az-zi-iš*, dat. *ša-ra-a-az-zi-ya*, abl. *ša-ra-a-az-zi-ya-az* 'upper'; *šu-up-pi-ya-aḫ-mi*, 3 sg. *šu-up-pi-(ya)-aḫ-ḫi*, pl. *šu-up-pi-(ya)-aḫ-ḫa-an-zi*, pret. *šu-up-pi-ya-aḫ-ḫu-un* 'make clean' : *šu-up-pi-iš* 'clean'; *ta-a-an pi-e-da-aš-ša-aḫ-ḫi-ir* 'make of second rank' : *da-a-an pi-e-da-aš* 'of second rank'; pret. 1 sg. *dan-na-(at)-ta-aḫ-ḫu-un* 'make empty' : neut. *dan-na-at-ta-an ta-an-na-ta-an* 'empty'.

In several instances adjectives from which verbs in *-aḫḫ* may be derived are not citable, but extensions of them in *-anz* are known [112]. Thus *ar-ma-aḫ-ḫa-an-zi*, part. dat. *ar-ma-aḫ-ḫa-an-ti* 'impregnate' beside acc. *ar-ma-an-da-an* 'pregnant'; *ma-an-ni-in-ku-wa-aḫ-ḫi* 'makes short' beside acc. *ma-ni-in-ku-u-wa-an-da-an*, pl. *ma-ni-in-ku-wa-an-te-eš* 'short'; imper. 3 pl. *du-ud-du-mi-ya-aḫ-ḫa-an-du* 'make deaf' beside *du-(ud)-du-mi-ya-an-za* 'deaf'. In other cases there is no direct evidence that such an adjective ever existed; possibly the suffix was sometimes used to make deverbatives.

Especially important is this possibility in the case of five verbs in which the suffix is preceded by a semivowel.<sup>27</sup> They are: *pār-aḫ-zi pār-ḫa-zi*, durat. *pār-aḫ-ḫi-iš-kán-zi* 'drive' : *περάω πέπρημι* 'cross', Goth. *faran farjan* 'travel'; *ša-an-aḫ-zi ša-an-ḫa-zi*, pret. 1 sg. *ša-(an)-aḫ-ḫu-un ša-an-ḫu-un*, durat. 2 sg. *ša-an-aḫ-ḫi-eš-ki-ši* 'peto' : Skt. *sanoti*, agent noun *sanitā* 'gain'; *ša-an-ḫa-zi*, pl. *ša-an-ḫa-an-zi* 'cleanse'; *tar-aḫ-zi*, pret. *tar-(aḫ)-ḫu-un*, 3 pl. *tar-aḫ-ḫi-ir*, imper. *tar-ḫu-du* 'be strong'; *wa-al-aḫ-zi*, pl. *wa-al-ḫa-an-zi*, pret. *wa-al-(aḫ)-ḫu-un* 'strike'.

<sup>24</sup> Sommer, KIF 1.347 (1930).

<sup>25</sup> Brugmann, Grundr. 2.3.210 (1916).

<sup>26</sup> Ehelolf, OLZ 36.4 f. (1933).

<sup>27</sup> IHL 37 f. (1942).



Since a large part of the forms listed above belong to the *hi*-conjugation, and since there is a tendency for Hittite verbs of the *hi*-conjugation to shift towards the *mi*-conjugation, I formerly thought that the *abh*-verbs primarily belonged to the *hi*-conjugation. It is now clear, chiefly from IE evidence, that we should rather start with *mi*-verb forms.

-eš<sup>28</sup>

**225.** The suffix -eš- is closely associated with the suffixes -a(e)- and -abh- in the Hittite texts. Its usual meaning is 'become what the primitive adjective denotes'. Typical examples are: *ḫar-ki-e-eš-zi ḫar-ki-iš-zi* 'becomes white': *ḫar-ki-iš* 'white'; *i-da-(a-)la-(a-)u-e-eš-zi*, pl. *i-da-(a-)la-(a-)u-e-(eš-)ša-an-zi*: *i-da-(a-)lu-uš* 'bad'; *kal-la-ri-eš-zi*: *kal-la-ar* 'bad'; pret. *ma-ak-ki-eš-ta*, part. *ma-ak-ki-iš-ša-an*: *me-ik-ki-iš* 'great'; *mar-še-eš-zi*, pret. 3 *mar-še-eš-še-ir*: *mar-ša-an* 'bad'; imper. *mi-li-it-e-eš*, *mi-li-ti-eš-du*: *mi-li-it* 'honey';<sup>29</sup> *na-ak-ki-eš-zi*, pret. *na-ak-ki-(e)-eš-ta*: *na-ak-ki-iš* 'heavy'; *pār-ku-(e)-eš-zi*, pret. *pār-ku-(u)-e-eš-šu-un*: *pār-ku-iš* 'clean'; *šal-li-eš-zi*, pret. *šal-li-eš-ta*: *šal-li-iš* 'great'; MI-*iš-zi*, durat. pret. *da-an-ku-iš-ki-it*: *da-an-ku-i-iš*, acc. *da-an-ku-in* 'black'; *te-pa-u-e-eš-zi*, pret. *te-(e)pa-u-e-eš-ta*: *te-pu-uš* 'small'; pret. *uk-tu-u-ri-e-eš-ta*: *uk-tu-(u)-ri-iš* 'continuous'.

There are several apparently similar verbs beside which no suitable adjectives can be quoted; e.g. pret. *ḫa-at-tu-li-eš-ta*, imper. *ḫa-ad-du-li-eš-du* 'become well' (cf. *ḫa-ad-du-la-tar* 'health'); *kar-tim-mi-e-eš-ta* 'become angry' (cf. *kar-tim-mi-(ya)az* 'anger'); *lu-uk-ki-eš-ta* 'it became light' (cf. *lu-uk-zi*, *lu-uk-ki-iz-zi* 'kindle, light; grow light'); 3 pl. *ma-ni-in-ku-e-eš-ša-an-zi* 'they became short' (cf. pl. *ma-ni-in-ku-wa-an-te-eš* 'short'); *šu-ul-li-e-eš-zi* *šu-ul-li-iš-zi* 'becomes quarrelsome' (cf. *šu-ul-li-ya-zi* 'quarrels'); imper. *du-ud-du-um-mi-iš-du* 'let him become deaf' (cf. *du-ud-du-mi-ya-an-za* 'deaf'); *wa-an-te-eš-zi* 'become warm' (cf. pret. *wa-an-ta-iš* 'was warm').

There is no similar group of denominative verbs in the IE languages. It is noteworthy that a number of *i*-stems form prior members of Greek and Latin compounds and are matched by *s*-stem nouns (e.g. *κυδιανειρα*, *κυδιστος*: *κύδος*; *καλλιθριξ*, *κάλλιστος*: *κάλλος*, Lat. *mūnificus*: *mūnus*; but I cannot make anything clear out of this hint.

Nasal Infix<sup>30</sup>

**226.** Five verbs with causative value are formed with infixed -nen- (usually written *ni-in* but occasionally *ni-en*; before a consonant group the second nasal is omitted).

*ḫar-ni-ik-zi*, 2 pl. *ḫar-ni-ik-te-ni*, pret. *ḫar-ni-in-ku-un*, 3 pl. *ḫar-ni-in-ku-ir* *ḫar-ni-in-kir*, imper. *ḫar-ni-ik*, 3 pl. *ḫar-ni-in-kán-du* 'destroy': *ḫar-ak-zi*, pret. 3 pl. *ḫar-ki-e-ir* 'be destroyed'.

*ḫu-u-ni-ik-zi* *ḫu-ú-ni-ik-zi*, *ḫu-(u)ni-ik-ta-ri*, pret. *ḫu-ú-ni-ik-ta-at*, part. *ḫu-u-*

<sup>28</sup> Götze, Hatt. 69, 94 (1925), KLF 181.1, 240 (1930); Sturtevant, Lang. 8.124 f. and fn. 16 (1932).

<sup>29</sup> Ehelolf, OLZ 36.2 f. (1933).

<sup>30</sup> Götze, Hatt. 72 (1925); Friedrich, ZA NF 2.50 (1925), Vertr. 1.31 fn. 3 (1926).

*ni-(in)-kán-za* 'cause to break'<sup>31</sup>: *hu-e-ik-zi*, pl. *hu-(u)-kán-zi* 'break a charm: ἄγγυμι 'break'.

*ni-ni-ik-zi*, pl. *ni-ni-in-kán-zi*, pret. *ni-ni-in-ku-un*, midd. *ni-ni-ik-ta-at* 'exalt, intoxicate': *ni-ik-zi*, pl. *ni-in-kán-zi*, pret. *ni-in-ki-(e)-ir* 'rise, be intoxicated': ἐνεργεῖν 'carry'.

*šar-ni-ik-zi*, pl. *šar-ni-in-ku-e-ni*, 3 *šar-ni-in-kán-zi* *šar-ni-en-kán-zi*, durat. *šar-ni-in-ki-eš-ki-mi* *šar-ni-en-ki-iš-ki-mi*, imper. *šar-ni-in-ki-iš-ki* 'make restitution'. These forms imply a verb \**šar-ak-zi* or the like; no such verb is citable, but cf. Lat. *sarcio* 'repair'.<sup>32</sup>

*iš-tar-ni-ik-zi*, pret. 1 pl. *iš-tar-ni-in-ku-en* 'injure, make ill': *iš-tar-ak-zi*, pret. *iš-tar-ak-ta* 'be ill'.<sup>33</sup>

Like other stem-forming affixes of the Hittite verb, infixed *nen* goes through the entire conjugation, including the participle, the infinitive, the verbal noun, and the durative. Before endings beginning with consonants the infix produced groups of three consonants, and these can be written accurately with cuneiform characters only if the third consonant is *w*; accordingly we find *iš-tar-ni-ik-zi* for [starnenkzi] but *iš-tar-ni-in-ku-en* for [starnenkuen]. The writing of the group *nk* amounts to proof that the consonant *n* was present also in the other form cited, and in many others like it.

In spite of the differences in form, there can scarcely be any doubt that the infix *nen* is to be connected with the IE infix *n(e)*. Possibly the second nasal originated in *nenen*- beside *nenk-*, where the infix may have been *ne*. But with equal probability one may derive IE *ne* from IH *nen* by haplology.

227. Here may be mentioned a small group of verbs whose stems end in *nk*. They remind one of nasal infix verbs like Lat. *iungo*, but, as far as their etymology can be traced, the nasal appears to be a part of the root. They are *ha-ma-an-ki*, pl. *ha-ma-an-kán-zi*, pret. *ha-ma-ak-ta*, part. *ha-me-en-kán-za* *ha-mi-in-kán-za* *ha-me-in-kán-za* 'bind'; *hi-in-ik-zi* *hi-in-ga-zi* *hi-ik-zi*, pl. *hi-in-kán-zi*, pret. *hi-in-ku-un*, *hi-ni-ik-ta* *hi-in-kat-ta*, *hi-in-kir* 'determine' beside *hi-in-kán* *hi-en-kán* 'fate, death, pestilence': OIr. *ēcen* 'necessity', Welsh *anghen* *angen* 'necessity, fate';<sup>34</sup> *ku-un-ku-u-e-ni*, part. *ku-un-ga-an* durat. midd. *ku-un-ki-iš-kán-ta-ri* 'adorn' (?); *li-ik-zi* *li-in-ga-zi*, pl. *li-in-kán-zi*, pret. *li-in-ku-un*, *li-(in)-ik-ta*, *li-en-ga-u-en*, imper. *li-i-ik* *li-in-ki* *li-in-ik*, 3 sg. *li-ik-du*, 2 pl. *li-en-ik-tin* 'swear': ἔλεγχος 'refutation'; *ni-ik-zi*, pl. *ni-in-kán-zi* 'be intoxicated'; *ta-me-ik-zi*, pl. *ta-me-en-kán-zi*, pret. *da-me-in-kir*, part. *da-mi-en-kán-te-eš* 'attach oneself to another' (?).

-*nu*.<sup>35</sup>

228. The regular causative conjugation in Hittite is formed with the inherited suffix *-nu-* (IH *-new/nw-*). Since both grades of the suffix appear as

<sup>31</sup> Sturtevant, Lang. 16.85 and fn. 23 (1940), IHL 50 (1942).

<sup>32</sup> Duchesne-Guillemin, É H 11 (1947).

<sup>33</sup> Probably we should read these two words as [starnenkzi] and [starkzi], with the same rhythmic structure as the other words of the group.

<sup>34</sup> Pedersen, Hitt. u. IE 183 f. (1938).

<sup>35</sup> Hrozný, SH 172 f. (1917); Sommer, BoSt. 7.40 fn. 1 (1922); Friedrich, ZA NF 1.15 f. (1924); Sommer, AU 55 (1932).

-*nu*-, all trace of ablaut is lost. The clearest etymology to be cited in support of this statement is *ar-nu-(uz)-zi*, 1 pl. *ar-nu-um-me-ni*, 3 pl. *ar-nu-(wa)-an-zi*, pret. *ar-nu-ut*, 3 pl. *ar-nu-e-ir* 'move, bring' : Skt. *ṛṇoti* 'moves, attains', Av. *ərənaoiti* 'grants', *ḍṛv̄mu* 'cause to move'. Almost equally certain is the identification with Skt. *inoti* (RV) 'causes to go, sends' of the second member of several Hittite compounds, namely, *ḫu-(u)-i-nu-(uz)-zi*, 1 pl. *ḫu-i-nu-(um)-me-ni*, 3 pl. *ḫu-i-nu-(u-wa)-an-zi*, pret. *ḫu-(u)-i-nu-ut* 'cause to go' beside *ḫu-(u)-wa-a-i*, pl. *ḫu-u-wa-(ya)-an-zi*, pret. *ḫu-(u)-wa-iš* 'go, run,' cf. *ḫa-* [215]; pret. *zi-nu-e-ir*, durat. *zi-(i)-nu-uš-ki-iz-zi* 'cause to pass' beside *za-a-i*, pret. *za-a-(i)-iš* 'pass' [215].

Other verbs in which the radical vowel appears in zero grade or reduced grade, as regularly in IE, are: *aš-nu-zi*, pl. *aš-nu-(wa)-an-zi* 'cause to sit'; *e-ša(-ri)* 'sit'; 2 sg. *la-ak-nu-ši*, 3 pl. *la-ak-nu-wa-an-zi*, pret. *la-ak-nu-ut* 'cause to lie' : *ša-li-ik-zi* 'lies with'; *wa-aḫ-nu-(uz)-zi*, 3 pl. *wa-aḫ-nu-(wa)-an-zi* 'cause to turn' : *ú-(e)-iḫ-zi*, pl. *wa-ḫa-an-zi*, pret. *ú-e-ḫu-un* 'turn'; pret. *wa-at-ku-nu-ut*, pl. *wa-at-ku-nu-(e)-ir* 'drive out' : *wa-at-ku-(uz)-zi*, pret. *wa-at-ku-ut* 'leap, descend'.<sup>36</sup>

**228a.** More frequently the suffix is appended to the verb stem in such a way that we have to assume analogical leveling or a totally new formation in Hittite or Anatolian times. From root verbs of the *mi*-conjugation we have *ḫu-iš-nu-zi* 'cause to live' beside *ḫu-i-iš-zi* 'lives'; pret. *ku-e-nu-nu-un* 'I caused to kill' beside *ku-e-nu-un* 'I killed'. Very frequently a vowel *a* is interposed between the root and the suffix; sometimes it may represent a thematic vowel *o*. The causative *li-in-ga-nu-zi* 'cause to swear' may come from the thematic verb illustrated by pret. 1 pl. *li-en-ga-u-en* and imper. *li-in-ki* rather than from the non-thematic *li-ik-zi*, 1 pl. *li-ku-wa-an-ni*, pret. *li-in-ik-ta*, imper. *li-in-ik*. From primary verbs in *a* of the *ḫi*-conjugation we have *kán-ga-nu-mi*, pret. *kán-ga-nu-ut* 'cause to hang' from *ga-an-ga-aḫ-ḫi kán-ga-aḫ-ḫi*, 3 sg. *ga-an-ga-i* 'hang' (intransitive); durat. *me-ma-nu-uš-ki-iz-zi* 'cause to speak' from *me-ma-aḫ-ḫi*, *me-ma-i* 'speak, say'; *wa-aš-ta-nu-uz-zi*, pret. 3 pl. *wa-aš-ta-nu-ir* 'cause to sin' from *wa-aš-ta-(a)-i* 'sins'. Beside *δεικνυμι*, aor. *ἔδειξα* 'show' we have *te-ik-ku-uš-ša-mi* 'I show', pret. with causative *-nu-*, *te-ik-ku-uš-ša-nu-nu-un* 'I showed', 3 sg. *te-ik-ku-uš-ša-nu-ut* 'he showed'; we also find, in the same meaning, causative forms without *-ša-*, such as *te-ik-ku-uš-nu-um-me-e-ni* 'we show', *ti-ik-ku-uš-nu-ut* 'he showed', and *ti-ik-ku-uš-nu-ir* 'they showed'.

**228b.** It is impossible to decide whether *MĒ-ya-nu-nu-un* 'I caused to fight' was formed from *MĒ-ya-nu-un* = *za-aḫ-ḫi-ya-nu-un* 'I fought' or from a noun stem seen in the acc. *za-aḫ-ḫa-a-in*. Of similar formation is *ka-ru-(ú)-uš-ši-ya-nu-(wa)-an-zi* 'they silence' (their musical instruments) : *ka-ru-uš-ši-ya-zi*, pl. *ka-ru-uš-ši-ya-an-zi* 'be silent', but here there is no noun formation known.<sup>37</sup> Certainly from denominative verbs are *dam-me-eš-ḫa-nu-nu-un* 'I caused to punish' from 3 pl. *dam-me-eš-ḫa-an-zi*, pret. *dam-mi-eš-ḫa-a-it* *dam-me-iš-ḫa-a-it*, pl. *dam-me-eš-ḫa-(a)-ir* 'punish', and pret. *iš-ta-an-ta-nu-nu-un* 'I caused to wait, neglected', durat. 2 pl. *iš-ta-an-ta-nu-uš-kiṭ-te-ni* : pret. *iš-ta-an-ta-nu-un*, *iš-ta-an-ta-it* *iš-ta-an-da-a-it* 'tarry, delay'.

**228c.** In a few instances the suffix *-nu-* seems to be appended to noun stems,

<sup>36</sup> I assume that *wa-* is the prefix [215] and that the full grade of the root would be *\*teku-*.

<sup>37</sup> Friedrich, Vertr. 1.172 f. (1926).

but we must reckon with the possibility of derivation from verbs that are still unknown. Peculiarly striking are 3 pl. *iš-ḥar-nu-wa-an-zi*,<sup>39</sup> imper. *e-eš-ḥar-nu-ut* 'make bloody' beside *e-eš-ḥar* 'blood'; 2 sg. *nu-un-tar-nu-ši*, 2 pl. *nu-un-tar-nu-ut-te-(e)-ni*, pret. 3 sg. *nu-un-tar-nu-ut* 'hasten' beside gen. sg. *nu-un-ta-ra-aš* 'of haste, quick';<sup>40</sup> *pár-ku-nu-(uz)-zi*, pl. *pár-ku-nu-wa-an-zi*, pret. *pár-ku-nu-ut*, pl. *pár-ku-nu-(i-e)-ir* 'make clean, acquit' beside acc. *pár-ku-iš* 'clean'; *te-ip-nu-zi*, pl. *te-ip-nu-wa-an-zi*, pret. *te-ip-nu-ut* 'make small, revile' beside *te-pu-uš*, neut. *te-(e)-pu* 'small'.

**228d.** In all instances so far mentioned the suffix *-nu-* is appended directly to a root or a stem. In a few words, however, we seem to have a union vowel *a*, which probably comes from the analogy of forms where it has an etymological justification, such as *me-ma-nu-*, *kán-ga-nu-*, *li-en-ga-nu-*. Perhaps we should always assume a basic stem with final *a* if such a vowel occurs in the causative. At present it is perhaps safer to speak of a union vowel in *a-ši-ša-nu-mi*, pret. *a-še-ša-nu-nu-un*, *a-še-ša-nu-ut* 'cause to be inhabited' : *a-še-ša-an-zi* 'they found' (a city); *aš-ša-nu-(wa)-an-zi* beside *aš-nu-wa-an-zi* 'they cause to sit'; pret. 3 pl. *ḥa-aš-ša-nu-e-ra-an* 'they caused him to be born' (KUB 33.93.3.10), durat. *ḥa-aš-ša-nu-uš-[ki-]* (KUB 33.93.3.7)<sup>41</sup> beside *ḥa-a-ši*, pret. *ḥa-aš-ta*, part. *ḥa-aš-ša-an-da-an*; *ḥar-ga-nu-ši*, pret. 3 pl. *ḥar-ga-nu-ir* 'destroy' beside *ḥar-ak-zi*, 2 pl. *ḥar-ak-te-ni*, pret. *ḥar-ak-ta*, pl. *ḥar-ki-e-ir* 'be destroyed'; *ḥa-at-ga-nu-(uz)-zi* 'shut in, oppress' = *ḥa-at-ki*, 3 pl. *ḥa-at-kán-zi* = *ḥa-at-ki-eš-nu-mi*, *ḥa-at-ki-iš-nu-uz-zi*, pret. *ḥa-at-ki-eš-nu-nu-un*.

**228e.** Except for a few cases in which the derivative in *-nu-* seems equivalent to the primitive—*te-ik-ku-uš-(ša)-nu-* = *te-ik-ku-uš-ša-*; *ḥa-at-ga-nu-* = *ḥa-at-ki*—the meaning of the suffix *-nu-*, as of the infix *-nen-*, is causative. In the two words that are common to Hittite and certain IE languages, the previously known IE words also show the causative meaning; they are *ḥrv̥mu* 'cause to move' and Skt. *inoti* 'cause to go'. Kurylowicz<sup>42</sup> has pointed out five nasal presents that are used transitively in the Rig Veda, while the corresponding intransitive force is expressed by middle forms without the nasal formative. Whitney<sup>43</sup> notes that *dhinoti* 'nourishes' may be classed as a causative of *dhā-* 'suck'.

-ške/a.<sup>44</sup>

**229.** The Hittite durative conjugation is roughly equivalent to the English phrase consisting of the present participle with the verb *to be* (*he is going, I was coming*). It cannot always be translated by such an English phrase, and some of its uses could not be anticipated on the basis of English usage; see [2.419 ff.]. I

<sup>39</sup> The verb *iš-ḥar-nu-ma-iz-zi*, pl. *iš-ḥar-nu-ma-an-zi* 'make bloody' can scarcely have any connection with the causative suffix. Cf. Sommer, BoSt. 10.18 (1924).

<sup>40</sup> See Friedrich, AOr. 6.368-73 (1934).

<sup>41</sup> Güterbock, Kumarbi 40.79 (1946).

<sup>42</sup> RO 6.201-4 (1928).

<sup>43</sup> W. D. Whitney, Roots, Verb Forms and Primary Derivatives 83 (1887).

<sup>44</sup> Hrozný, SH 174-7 (1917); Sommer, BoSt. 4.13 fn. 2, BoSt. 10.21 f. (1924); Bechtel, -sk- (1936); Sommer, OLS 40.513-6 (1937), Bil. 64, 106 f. (1938), OLS 44.61 (1941); Sturtevant JAOS 63.1-3 (1943).

shall usually not indicate the durative meaning when citing forms of verbs in *-ške/a-* or in *šša-*.

Duratives are usually formed with the suffix *-ške/a-*, occasionally with *-(š)ša-* [237]. Any verb whose meaning permits can make a derivative of one type or the other. Especially remarkable are the causative verbs in suffix *-nu-* extended by *-ške/a-*, e.g. *hu-iš-nu-uš-ki-iz-zi*, pret. *hu-iš-nu-uš-ki-e-it* from *hu-iš-nu-zi*, pret. *hu-iš-nu-ut* 'cause to live'; *li-in-ga-nu-uš-kán-zi*, pret. *li-in-ga-nu-uš-ki-it*, pl. *li-in-ga-nu-uš-ki-ir* from *li-in-ga-nu-zi*, pret. *li-in-ga-nu-ut* 'cause to swear'.

229a. Verbs in *sk* are common in several of the IE languages, and in some of these they are attached to specific meanings. Thus the Ionic Greek durative preterits in *-σκ-*,<sup>45</sup> most frequent in Homer,<sup>46</sup> are very close in meaning and in form to the Hittite verbs in *-ške/a-*. Quite possibly this meaning was inherited in both languages. In Tocharian B the meaning of *sk-* verbs (*-s-* in Tocharian A) was causative; this reminds one of the frequent Hittite forms in *-nuške/a-*. Elsewhere in IE, *sk*-verbs are particularly common only in Latin, where the prevailing inchoative meaning is clearly secondary.

229b. Several Hittite *šk*-verbs are evidently inherited; e.g. *a-ar-aš-ki-iz-zi*, pret. *a-ar-aš-ki-it* 'come': Skt. *ṛcchati* 'come to, attain'; *uš-ki-iz-zi*, pl. *uš-kán-zi*, pret. *uš-ki-it*, pl. *uš-ki-ir* 'see': Skt. *ucchati* 'shine'; *me-(e)-mi-iš-ki-mi*, *me-mi-iš-ki-iz-zi* *me-mi-eš-ki-iz-zi*, pl. *me-mi-iš-kán-zi*, pret. *me-mi-iš-ki-it* 'say': *μυμνήσκομαι* 'I remember' (< *-μνᾶ-*).<sup>47</sup>

Other *šk*-verbs containing reduced or zero grade of their roots are: *ak-ku-uš-ki-iz-zi*, pl. *ak-ku-uš-kán-zi*, pret. *ak-ku-uš-ki-nu-un*, *ak-ku-uš-ki-it*, *ak-ku-uš-ki-ir* 'drink' beside *e-ku-(uz-)zi*, 1 pl. *a-ku-e-ni*, 3 pl. *a-ku-(wa-)an-zi*, pret. 1 sg. *e-ku-un*, 3 sg. *e-ku-ut-ta*, 1 pl. *e-ku-e-en*, 3 pl. *e-ku-(i-e)-ir* 'drink, give to drink';<sup>48</sup> *az-zi-(ik-)ki-iz-zi*, pl. *az-zi-(ik-)kán-zi*, pret. *az-zi-ik-ki-nu-un* 'eat' beside *e-it-mi*, 3 sg. *e-iz-(za-)zi* *e-(iz-)za-az-zi*, 1 pl. *a-tu-e-ni*, 2 pl. *az-za-aš-te-ni*, 3 pl. *a-da-an-zi* 'eat'; *hur-za-ki-iz-zi* beside *hu-u-wa-ar-daḫ-ḫi*, 3 sg. *hur-da-i*, pret. *hu-wa-ar-ta-aš* 'curse'; pret. *ku-wa-aš-ki-nu-un*, *ku-wa-aš-ki-it*, imper. 3 pl. *ku-wa-aš-ka-an-du* beside *ku-en-zi* 'strike'; *zi-ik-ki-iz-zi*, 3 pl. *zi-(ik-)kán-zi*, pret. 2 sg. *zi-ik-ki-eš*, 3 sg. *zi-ik-ki-it*, 3 pl. *zi-ik-ki-ir* 'place' beside 3 sg. *da-a-i*, 1 sg. *te-iḫ-ḫi*.

230. A large majority of the *šk*-verbs have the vowel *e* (later *i*) before the suffix. This is true of all such verbs from the *a*-verbs of the *ḫi*-conjugation, where we find also a number of verbal nouns in *-eššar* instead of expected *-aššar* [96]. Thus we have *ḫa-an-ne-iš-ki-ši* *ḫa-an-ni-iš-ki-ši*, 2 pl. *ḫa-an-ne-iš-ki-ṭe-e-ni*,

<sup>45</sup> Commonly called *iterative* rather than *durative*, since few native speakers of European languages other than English readily appreciate the nuance of meaning, 'was coming', rather than 'kept coming'. Thus in Iliad 2.27 the meaning of *ὦδε δὲ τις εἶπεσκε ἰδὼν ἐς πλησίον ἄλλον* (followed by a speech of six lines) must be 'And thus was speaking a man glancing at his neighbor'. It is absurd to say, 'And thus spoke many a man'.

<sup>46</sup> Schwyzler, *Griechisch Grammatik* 706-12 (1939), bibliography 707, fn. 1.

<sup>47</sup> In *me-mi-eš-ki-iz-zi* we have an instance of the spread of the suffix form *-eške/a-* [230]; but cf. *me-mi-iš-te-ni*, *me-mi-iš-ta*, *me-mi-eš-tin*.

<sup>48</sup> I have no explanation for the single *k* in the primary verb and the double *k* in the derivative verb.

pret. *ha-an-ne-iš-ki-nu-un* : *ha-an-na-a-i*, pl. *ha-an-na-an-zi* 'litigate, judge'; *pi-en-ni-eš-ki-iz-zi* : *pi-en-na-(a)-i*, pl. *pi-en-na-an-zi*, pret. *pi-en-na-aḫ-ḫu-un*, 3 sg. *pi-en-ni-iš-ta pi-en-ni-eš-ta*, pl. *pi-en-nir pi-en-ni-ir* 'drive'; *up-pi-eš-kán-zi*, pret. *up-pi-eš-ki-nu-un*, 3 pl. *up-pi-iš-ki-ir* : *up-pa-aḫ-ḫi*, 3 sg. *up-pa-a-i*, 2 pl. *up-pa-at-te-ni*, pret. *up-pa-aḫ-ḫu-un*, 2 sg. *up-pi-eš-ta* 'send'; *ú-ti-iš-ki-mi*, pret. 3 pl. *ú-te-eš-kir* : *ú-da-aḫ-ḫi*, 3 sg. *ú-da-(a)-i*, 1 pl. *ú-tum-me-e-ni*, 3 pl. *ú-da-an-zi* 'bring'.

Other duratives in *-eške/a-* are: *a-ni-iš-ki-mi*, 3 sg. *an-ni-iš-ki-iz-zi*, pl. *an-ni-eš-kán-zi*, pret. 1 sg. *a-an-ni-iš-ki-nu-un*, 3 pl. *an-ni-eš-ki-ir* : *a-ni-ya-mi*, *a-ni-ya-(az)-zi* 'perform'; *ar-ri-iš-kán-zi*, pret. *ar-ri-eš-ki-nu-un* : *ar-ra-aḫ-ḫi*, 3 sg. *ar-ra-i* 'wash'; pret. 3 pl. *e-eš-ši-iš-kir e-še-eš-ki-ir* : *e-eš-ša-(a)-i*, pret. 1 sg. *e-eš-ša-aḫ-ḫu-un*, 3 sg. *e-eš-še-eš-ta*, 3 pl. *e-(eš)-še-ir* 'prepare, perform'; pret. *ḫu-ul-li-iš-ki-nu-un*, sup. *ḫu-ul-li-iš-ki-u-wa-an* : *ḫu-ul-la-a-i*, pl. *ḫu-(u)-ul-la-an-zi*, pret. *ḫu-ul-la-nu-un* 'smite'; *i-la-liš-ki-iz-zi*, 1 pl. *i-la-li-iš-qa-u-e-ni*, 3 pl. *i-la-li-iš-kán-zi* : *i-la-a-li-ya-mi*, 3 sg. *i-la-li-ya-(a)-zi*, 3 pl. *i-la-li-ya-an-zi* 'desire'; 2 sg. *iš-ḫa-mi-iš-ki-ši*, 3 pl. *iš-ḫa-mi-iš-kán-zi* : 3 pl. *iš-ḫa-mi-ya-an-zi* 'sing'; *ku-en-ni-eš-ki-iz-zi* : 1 pl. *ku-en-nu-um-me-e-ni*, 3 pl. *ku-en-na-an-zi*, pret. 3 pl. *ku-(e)-en-ni-ir* 'strike, kill'; 2 sg. *la-aḫ-ḫi-eš-ki-ši*, pret. *la-aḫ-ḫi-eš-ki-it* : *la-aḫ-ḫi-ya-mi*, 2 sg. *la-aḫ-ḫi-ya-ši* 'make a campaign'; *na-an-ni-eš-ki-iz-zi*, pret. 3 pl. *na-an-ni-eš-ki-ir* : *na-an-na-i*, pret. *na-an-na-aḫ-ḫu-un*, 3 pl. *na-an-ni-ir* 'lead'; *pi-eš-ki-mi*, *pi-eš-ki-iz-zi pi-iš-ki-iz-zi*, 3 pl. *pi-eš-kán-zi*, pret. *pi-eš-ki-it*, pl. *pi-eš-kit pi-iš-kir* : *pa-a-i*, 1 sg. *pi-iḫ-ḫi*, pret. *pi-iḫ-ḫu-un*, 3 sg. *pa-(a)-iš*, 2 sg. *pi-eš-ti*, 2 pl. *pi-eš-te-(e)-ni*, pret. 3 sg. *pi-eš-ta*, 3 pl. *pi-eš-ši-ir* 'give'; *šu-un-ni-eš-ki-iz-zi*, pl. *šu-un-ni-eš-kán-zi* : *šu-un-na-(a)-i*, pl. *šu-un-na-an-zi*, pret. 3 sg. *šu-un-na-aš šu-un-ni-iš-ta* 'fill'; *tar-ni-iš-ki-iz-zi*, 1 pl. *tar-ni-iš-ka-u-e-ni*, pret. 3 pl. *tar-ni-eš-kir* : *tar-na-(a)-i*, pret. 3 sg. *tar-na-aš tar-ni-eš-ta* 'put in'; *ti-iš-ki-iz-zi*, 3 pl. *ti-iš-kán-zi*, pret. *ti-iš-ki-it ti-eš-ki-it* : *ti-ya-mi*, 3 sg. *ti-ya-zi ti-(i-e)-iz-zi* 'take one's stand'; *wa-al-ḫa-an-ni-iš-kán-zi* GUL-*an-ni-eš-kán-zi*, pret. 3 sg. GUL-*an-ni-eš-ki-it* : *wa-al-ḫa-an-na-i* 'smite'; pret. 3 sg. *ú-e-te-eš-ki-it* : pret. 1 sg. *ú-e-da-aḫ-ḫu-un*, 1 pl. *ú-e-du-me-en ú-e-tum-me-en* 'build'; *za-aḫ-ḫi-iš-ki-mi*, 2 sg. *za-aḫ-ḫi-iš-ki-ši*, pret. 1 sg. *za-aḫ-ḫi-iš-ki-nu-un*, 3 sg. *za-aḫ-ḫi-iš-ki-it* : 1 pl. *za-aḫ-ḫu-u-e-ni*, pret. 3 pl. *za-aḫ-ḫi-ir*, midd. 3 pl. *za-aḫ-ḫa-an-da*, *za-aḫ-ḫi-ya-mi*, 2 sg. *za-aḫ-ḫi-ya-ši*, 3 sg. *za-aḫ-ḫi-e-iz-zi*, 1 pl. *za-aḫ-ḫi-ya-u-e-ni* 'fight'.

#### Stems of the *ḫi*-conjugation<sup>49</sup>

231. The *ḫi*-conjugation seems not to occur outside of Hittite. No such forms are citable from Hieroglyphic Hittite, Luwian, Palaic, Lycian, or Lydian. We have noted that in several other respects also Hittite contrasts with all the other Anatolian languages [9-14, 82].

In Luwian and Lycian, to be sure, we have divergent forms of a preterit

<sup>49</sup> R. J. Kellogg, Some New Indo-European Coincidences in Hittite 38-41 (Ottawa, Kas., 1925); Kuryłowicz, Symb. Gramm. 103 (1927); Sturtevant, Lang. 3.161-8, 215-25 (1927); Walter Couvreur, Annuaire de l'Institut de Philologie et d'Histoire Orientales et Slaves 4.551-73 (1936); Sturtevant and Bechtel, Lang. 14.10-19 (1938); Pedersen, Hitt. u. IE 80-100 (1938); Sturtevant, Lang. 16.179-82, 273-84 (1940).

active, e.g. Luw. 1 sg. *||ta-par-ḫa* 'I ruled', 3 sg. *||ar-pa-ša-at-ta* 'there was bad luck' [9].<sup>50</sup> We may fairly see in the ending *-ḫa* of the first person the Proto-Anatolian form that gave rise to the Hittite present ending *-(ḫ)ḫi* and the preterit ending *-(ḫ)ḫun*. The change from *-ḫa* (i.e. *-xa*) to *-(ḫ)ḫi* (i.e. *-xi*) was a part of the spread of final *-i* to all present active forms [263]; and the Hittite preterit ending *-(ḫ)ḫun* is a contamination of inherited *-(ḫ)ḫa* (i.e. *xa*) with *-un* (from syllabic *-m*) of the *mi*-conjugation. IH *-xe* (whence Anatolian *-xa*) yielded IE *-a* (oḏa, Skt. *veda*, etc.) [74].<sup>51</sup>

The 2 sg. pres. ending *-(t)ti*, pret. *-(t)ta* must be identified with the ending of oḏθa and Skt. *vettha* 'thou knowest' from IH *woytsṭhe*<sup>52</sup> (IE *woitstha*, Anatolian *-tha*). In Hittite, inherited pres. *-(t)ta* became *-(t)ti* with the spread of final *-i*, while in its preterit value *-(t)ta* remained unchanged.

3 sg. *-i* of consonant stems of the *ḫi*-conjugation corresponds with the ending of oḏδε and Skt. *veda* 'he knows'. Whether Hitt. *-i* represents the regular development of IH final *-e* or whether it is due to the spread of final *i* in all present verb forms is chiefly a matter of date.

In considering this evidence one must remember that the historic IE languages show old perfect forms in present value; the preterito-presents of the Germanic languages are the best known examples, but no more striking than oḏa = Skt. *veda* 'I know', πέποιθα 'I trust', ἑστηκα 'I stand', Skt. *āha*, 3 pl. *āhur* 'say'. The more familiar value of the perfect in Indo-Iranian, Greek, Latin, and Germanic is, of course, preterital, and the intermediate value of Greek perfects like τέθνηκε 'he is dead though once he was alive' probably comes close to the original value of the perfect in Proto-IH. Quite possibly this value survived in Proto-Anatolian, so that in pre-Hittite two tenses developed out of one to give a new conjugation.<sup>53</sup>

Besides, a number of Hittite forms of the *ḫi*-conjugation show a final *š* or an *š* between stem and personal ending, as in Lat. *vidistī, vidistis*. A majority of the singular forms of consonant stem verbs of the *ḫi*-conjugation have radical vowel *a*, which no doubt continues IH *o*, and in several of these verbs the corresponding vowel of the plural is *e* (sometimes *i*). We shall mention below [232-9] further peculiarities of the *ḫi*-conjugation that find analogues in the IE perfect tense.

The *ḫi*-conjugation, as we meet it in Hittite, is distinguished from the *mi*-conjugation by a partially different set of endings [263-277]. Verbs of the *ḫi*-conjugation fall into three conjugation classes according to the stem final: (1) consonant stems, (2) *a*-stems, (3) diphthongal stems. The first and third classes contain only primary verbs; the second class includes some derivative verbs.

#### Consonant Stems

**232.** All primary consonant stems of the *ḫi*-conjugation known to me have *a* in the radical syllable throughout the present singular, except *ḫa-at-ki* 'shut

<sup>50</sup> Sommer, AU 62 fn. 1, 458 (1932).

<sup>51</sup> IHL 39 (1942).

<sup>52</sup> On IE *-th* from IH *t* plus any voiceless laryngeal, see IHL 83 (1942).

<sup>53</sup> The development of the IE pluperfect must have begun in Proto-IE, but it never got very far before the separate history of the several Indo-European languages.



in', which probably consists of prefix *ha-* [215] and zero grade of the root (cf. Lat. *tego* 'cover'). The correspondence of the *a* of other *hi*-conjugation verbs with the *o* of the IE perfect singular active may be taken for granted.

**233.** In a large majority of the stems the radical vowel *a* is found in the plural as well as in the singular. In four verbs, however, the stem vowel of the singular is *a* and of the plural *e*. These verbs are: *ša-(a-)ag-ga-aḥ-ḥi* *ša-ak-ḥi* 'I know', 2 sg. *ša-(a-)ak-ti*, 3 sg. *ša-ak-ki*, 1 pl. *še-ik-ku-e-ni*, 2 pl. *še-ik-te-ni*, 3 pl. *še-ik-kán-zi*, pret. 2 sg. *ša-ak-ta*, 3 sg. *ša-ak-ki-iš* *ša-ak-ta*, 3 pl. *še-ik-ki-ir*, imper. *ša-a-ak* *ša-ki*, 3 sg. *ša-a-ak-du* *ša-ak-ku*, 2 pl. *še-ik-tin*, 3 pl. *še-ik-kán-du*; *a-ar-ḥi*, 'I arrive', 2 sg. *a-ar-ti*, 3 sg. *a-ri*, 2 pl. *e-ir-te-ni*, 3 pl. *(a-ra-an-zi)*, pret. 1 sg. *(a-)ar-(aḥ-)ḥu-un*, 3 sg. *a-ar-aš* *a-ar-ta*, 1 pl. *e-ru-u-en*, 2 pl. *ir-te-in*, 3 pl. *i-e-ri-ir*; 3 sg. *ḥa-a-ši* 'opens', 3 pl. *(ḥa-a-ša-an-zi)* *ḥé-e-ša-an-zi*, pret. 3 sg. *ḥa-(a-)aš-ta*, 3 pl. *ḥi-e-še-ir*; 3 sg. *ka-ra-a-pi* *ka-a-ra-pi* *ga-ra-pi* 'devours', 3 pl. *ka-ri-pa-an-zi* (*ka-ra-pa-an-zi*), pret. 3 sg. *(ka-ri-pa-aš)*, 2 pl. *ka-ri-ip-tin*, *ka-ri-e-pi-ir*, imper. 3 pl. *ka-ri-pa-an-du*. There is clearly some leveling in both directions, as in the forms cited in parentheses, but the distinction is fairly well maintained except in the third plural present.

Hitt. *e* must represent IH *e* or *ē*; but a full or lengthened grade vowel in the plural beside *o*-grade in the singular is strange. In fact, it would be almost incredible if we did not have clear record of such an alternation in certain Germanic preterites. Whatever the origin of Goth. *sah* 'I saw': *sēhum* 'we saw', it puts the alternation of *o*-grade in the singular with lengthened *ē*-grade in the plural beyond dispute. So remarkable a distribution of vowels can scarcely have developed in two languages independently. We must assume IH perfects with *o*-grade in the singular and *ē* in the plural.<sup>54</sup>

A trace of the same distribution of vowels appears in pret. 3 pl. *e-ki-ir* *e-kir* (more frequent *a-ki-ir* *a-kir*) 'they died' beside pres. 3 sg. *a-ki*, 1 pl. *ak-ku-(u)-e-ni*, 2 pl. *a-ak-te-ni*, 3 pl. *ak-kán-zi*, pret. 3 sg. *ak-ta* (*a-*)*ak-ki-iš*, 2 pl. *a-ak-te-en*. The half dozen plural forms with initial *e-* formerly led me to identify the verb with Lat. *ēgī*, 3 pl. *ēgēre*.<sup>55</sup>

#### Stems in *a*

**234.** Since IH *eh* yielded Hitt. *a*, and IH *oh* also became Hitt. *a*, we cannot be certain in any particular *hi*-conjugation verb in stem final *a* whether to assume the perfect *o*-vocalism in the singular or not. Hitt. *da-a-i*, 1 sg. *da-aḥ-ḥi* 'take' probably goes with *ἐδωκα* 'I gave' (< IH *dohxe* [77a]), but there is no evidence for the *o* vowel in Hittite.

In case of reduced grade in the plural, we may assume IH *-bh-* > Hitt. *-a-*,

<sup>54</sup> Sommer's remark, Hbd. d. lat. Laut- und Formenlehre<sup>2</sup> 550 (1914), about Latin perfects with lengthened grade is thus confirmed: 'Die Vergleichung der 1 pl. Perf. *venimus* mit got. *qēmum* "wir kamen" . . . deutet auf idg. Character dieses Typus; nur ist sicher, dass das Gotische mit seiner Vertheilung . . . eine ursprüngliche, noch nicht sicher gedeutete Differenz bewahrt hat, die im Lateinischen durch Verallgemeinerung des *ē* verwischt wurde.'

<sup>55</sup> In Lang. 11.183 (1935) I suggested, in effect, that in IH there may have been a pres. *'bgēty* 'he dies' beside a perf. *'oge*, pl. *'ēg'r* 'he is, they are dead'; but no strong support for such a theory can be got out of Latin. Besides, we need a way to account for *kk* in many Hittite forms.



IE -ə-. Zero grade (cf. Skt. *dadmās* 'we give') involves complete lack of the stem vowel. Probably this is the source of the vocalism of *me-mi-e-ir me-mi-ir* 'they said', whereas *da-a-ir* 'they took' may come from IH *dh-h-e'r*.

Since IH *x* would surely be evidenced by Hitt. *-ḫḫ-*, we may safely trace the *a* of most verbs of the second class to the effect of IH *h*. Since IH *-hx-* yields Hitt. *-ḫḫ-* and IE *-k-*, Hitt. *da-aḫ-ḫi* 'I take' is close to *ἔδωκα* 'I gave',<sup>56</sup> and *me-ma-aḫ-ḫi* 'I say' comes from IH *me-mnehxe* (\**μέμνᾱκα*). One may compare *ἑστᾱκα* 'I stand' with Toch. A *tākā* 'I was', although Hittite happens not to have the corresponding \**iš-ta-aḫ-ḫi* or \**ši-it-ta-aḫ-ḫi* 'I stand'.

#### Derivative Verbs in *-na*<sup>57</sup>

**235.** In the IE languages the suffix *-nā-*, like the suffix *-neu-*, forms presents; we should therefore expect the corresponding Hittite verbs to belong to the *mi*-conjugation. It would be easy to hold that the conjugation of *na*-verbs (IH *-neh-* [76]) had been transferred to the *ḫi*-conjugation, if it were not for a hitherto unexplained feature of the Sanskrit conjugation; beside sg. active *krīṇāmi*, *krīṇāsi*, *krīṇāti* 'buy', the pl. is *krīṇīmās*, *krīṇīthā*, *krīṇānti*, and the 3 sg. middle is *krīṇītē*. In contrast to this Greek shows *πέρνημι* 'I sell', midd. *πέρναμαι*. In Avestan also we find the suffix in only three forms, *-nā-*, *-na-*, and *-n-*. One would like to find an explanation of the Skt. reduced grade *-nī-* of the suffix in Hitt. 3 sg. *tar-na-(a)-i* 'he puts in'; IH 2 pl. *-nabythē*, beside 3 sg. *-néhy*, should yield Skt. 2 pl. *-nīthā*. In any case, the second vowel of *πέρναμαι* is in order, and so is the zero grade of Hitt. pret. 3 pl. *tar-ni-ir tar-nir*, of Skt. pres. 3 pl. *krīṇānti*, and of Av. pres. 3 pl. *frī-n-enti* 'they love'.

Several Hittite *na*-verbs stand beside nasal stems in related languages; e.g. *tar-na-aḫ-ḫi*, 2 sg. *tar-na-at-ti*, 3 sg. *tar-na-(a)-i*, 1 pl. *tar-nu-um-me-(e)-ni*, 2 pl. *tar-na-at-te-ni*, 3 pl. *tar-na-an-zi* 'put in': *τετραίνω* 'pierce', *τείρω* 'oppress'; *šu-na-aḫ-ḫi*, 3 sg. *šu-un-na-(a)-i*, 3 pl. *šu-un-na-an-zi* 'fill': Skt. *sunoti*, Av. *hunaoti* 'press out', Hitt. midd. pret. *šu-ut-ta-ti*, imper. 3 sg. *šu-ut-ta-ru*, part. *šu-u-wa-an-za* 'press out, fill'; *i-ya-an-na-i*, pret. *i-ya-an-ni-eš i-ya-an-na-iš*, sup. *i-ya-an-ni-wa-an* 'go, march': Lat. *prōdinunt*, *redīnunt*, *obīnunt* 'they go'; *be-da-an-ni-iš*, sup. *be-da-a-an-ni-wa-an* 'pay': Lat. *danunt* 'they give'(?).

Equally primitive in form is *du-wa-ar-na-a-i*, 3 pl. *du-wa-ar-na-an-zi*, imper. 3 sg. *du-wa-ar-na-a-ú* 'break': *θραύω* 'break up', Lat. *frūstum* 'fragment'; but I cannot find this verb with nasal suffix in Indo-European.

1 pl. *ku-en-nu-um-me-e-ni*, 3 pl. *ku-en-na-an-zi*, pret. 2 sg. *ku-in-ni-eš-ta*, durat. *ku-en-ni-eš-ki-iz-zi* 'smite' stands beside equivalent pret. 1 sg. *ku-wa-aš-ki-nu-un*, 3 sg. *ku-wa-aš-ki-it*; it has clearly been influenced by the full grade forms of the primitive verb *ku-en-zi* 'he strikes'.

**236.** Elsewhere in Hittite, as far as I know, the suffix *-na-* is secondary, and very frequently it takes the form *-anna-*. Forrer<sup>58</sup> derived one of these verbs,

<sup>56</sup> IHL 64 (1942).

<sup>57</sup> Sommer, BoSt. 10.22 (1924); Götze, Madd. 129 f. (1928); Sturtevant, Lang. 7.167-72 (1931); Bechtel, *-sk-* 82-4 (1936); Pedersen, Hitt. u. IE 122-5 (1938); Hendricksen, Laryng. 66-8 (1941); IHL 44 f. (1942). Cf. Brugmann, KVG 512.

<sup>58</sup> RHA 1.144 (1923); cf. Bechtel, *-sk-* 83 f. (1936).

3 sg. *wa-al-ḥa-an-na-i* 'strikes', from the verb. n. *\*wa-al-ḥa-tar* (gen. *\*wa-al-ḥa-an-na-aš*) 'a beating'; and this is quite possibly the source of the type, although the particular word is not citable. These verbs seem to have had durative meaning to start with, and that is no doubt the reason why they are frequently employed with the *-eške/a-* extension. It is noteworthy that we also have a number of parallel verbs in *-anniya/e-*. Examples are: *la-aḥ-ḥi-ya-an-ni-iš-ga-u-e-ni* 'we campaigned'; *la-aḥ-ḥi-ya-mi*, verb. n. *la-aḥ-ḥi-ya-tar*; *pār-ši-ya-an-na-(a)-i* 'he breaks (bread)', 3 pl. *pār-ši-ya-an-na-an-zi*, pret. 3 pl. *pār-ši-ya-an-nir*, pres. 3 pl. *pār-ši-ya-an-ni-(ya)-an-zi*, durat. *pār-ši-ya-an-ni-iš-ki-it* : *par-ši-ya-(az)-zi*, midd. *pār-ši-ya*.

#### Derivative Verbs in *-ša*<sup>59</sup>

237. Another suffix which forms verbs of durative meaning is *-ša*. One of the commonest words of the group is *e-eš-ša-aḥ-ḥi*, 2 sg. *iš-ša-at-ti*, 3 sg. *e-eš-ša-(a)-i* (*i-*)*iš-ša-i*, 1 pl. *e-eš-šu-u-e-ni*, 2 pl. *iš-ša-at-te-ni*, 3 pl. *e-eš-ša-an-zi*, pret. 1 sg. *e-eš-ša-aḥ-ḥu-un*, 1 pl. *e-eš-šu-u-en*, 3 pl. *e-eš-še-ir e-eš-šir* 'make, do, perform' : *i-ya-az-zi i-(e)-iz-zi*, 3 pl. *i-ya-an-zi i-(e)-en-zi* 'make';<sup>60</sup> *e-iz-za-a-i*, imper. 2 sg. *e-iz-za-az-za*, 2 pl. *e-iz-za-at-tin*, 3 pl. *e-iz-za-an-du* 'eat' : *e-it-mi*, 1 pl. *a-tu-e-ni*, 3 pl. *a-da-an-zi*; *ḥal-zi-iš-ša-aḥ-ḥi*, 2 sg. *ḥal-zi-iš-ša-at-ti*, 3 sg. *ḥal-zi-(i)š-ša-i*, 3 pl. *ḥal-zi-iš-ša-an-zi*, pret. 2 sg. *ḥal-zi-eš-še-eš-ta*, 3 pl. *ḥal-zi-eš-šir* 'recite, read' : *ḥal-zi-iḥ-ḥi*, 3 sg. *ḥal-za-(a)-i* 'call'; pret. 1 sg. *iš-pār-za-aḥ-ḥu-un* 'escape' : pres. 3 sg. *iš-pār-za-(az)-zi*, pret. 3 pl. *iš-pār-te-ir*.

#### Diphthongal Stems<sup>61</sup>

238. Something over a dozen verbs of the *ḥi*-conjugation, some of which are very common, have stems ending in a diphthong. All of them are primary verbs. The diphthongs concerned are *ai* and, in a single verb, *au*.<sup>62</sup> Several of these verbs are from heavy bases and therefore must originally have contained laryngeals. Indications are not lacking that the light base verbs involved have also lost laryngeals, but a complete case for this cannot now be established. All verbs of this class are heavily suppleted by variant stems; one must conclude that the type of conjugation was about to disappear at the time when our texts were written.

238a. The following two verbs come from heavy bases.

*te-(iḥ-)-ḥi*, 2 sg. *da-it-ti*, 3 sg. *da-a-i*, 2 pl. *da-a-it-te-ni*, pret. 1 sg. *te-iḥ-ḥu-un*, 2 sg. *da-(a)-iḥ*, 3 sg. *da-a-iḥ*, 1 pl. *da-i-u-en*, 3 pl. *da-a-ir*, imper. 2 sg. *da-(a)-i*, 3 sg. *da-a-ú* beside 3 sg. *ti-ya-zi ti-(i-e)-iz-zi*, 1 pl. *ti-(i)-ya-u-e-ni*, 3 pl. *ti-(ya)-an-zi*, pret. 3 sg. *ti-ya-at*, 1 pl. *ti-(i)-ya-u-en*, 3 pl. *ti-(i)-e-ir*, imper. 3 pl. *ti-an-du* 'place, put'. This verb is certainly to be connected with *τιθημι*, Skt. *dadhāti*, etc.; cf.

<sup>59</sup> Götze, Madd. 105 (1928); Sturtevant, Lang. 7.171 f. (1931); Sommer, AU 303 f. (1932); Bechtel, -sk- 75-8 (1936); Sturtevant, JAOS 63.1-3 (1943).

<sup>60</sup> Not to be connected with *e-eš-zi* 'sets', as I did in HG<sup>1</sup> 246. See fn. 59.

<sup>61</sup> On the reasons for interpreting written *ta-(a)-i* as diphthongal in value, rather than as dissyllabic, see [61c]. The proof is not complete for every instance. See Hendriksen, Laryng. 62-8 (1941).

<sup>62</sup> Perhaps the verb *ma-uš-* 'fall' should be included, but I can find no form surely to be ascribed to the *ḥi*-conjugation.

Hitt. 1 sg. *te-iḫ-ḫi* : ἔθηκα, Lat. *fēcī* [77a, 234]. The diphthongal base of many of the Hittite forms is matched by Skt. pres. passive *dhīyate*, aor. *adhītām* (RV), (a)*dhīmahi*, *dhīmahe*, *dhaithe* (RV), aor. passive (a)*dhāyi* : Lett. *dēju dēt* 'lay eggs', *dēju dēt* 'solder together'; OCS *děja* 'lay'; OCz *děju* 'do, make.'

Imper. *iš-pa-a-i* beside 3 pl. *iš-pi-ya-an-zi*, pret. 3 pl. *iš-pi-an-du* 'satisfy oneself' (with food or drink). The etymology was plausibly suggested twenty-two years ago;<sup>63</sup> the form and meaning both point to Skt. *sphāyati* 'he grows fat', *sphītas* 'fat', Lith. *spėju spėti* 'Erfolg haben', OCS *spěja spėti* 'succeed'.

**238b.** Beside IE light bases ending in *-ei* we have:

*-ai-* 'go, cause to go' ( : IE *ei-* 'go'), citable in compounds; (a)*ap-pa-a-i*, 3 pl. *ap-pi-ya-an-zi* 'be finished';<sup>64</sup> *ḫu-wa-(a)-i*, pl. *ḫu-u-wa-an-zi*, pret. 3 sg. *ḫu-(u)-wa-(a)-iš*, 3 pl. *ḫu-(u)-wa-(a)-ir*, sup. *ḫu-wa-a-iš-ki-wa-an* 'march'.

*-ai-* 'give' ( : Toch. B. *ai-* 'give'), *aiśa* 'fate', Osc. *aeteis* (gen.) 'partis'. The verb occurs in composition with the inseparable prefix IH *b'e-* 'away' as *pi-iḫ-ḫi*, 2 sg. *pa-it-ti*, 3 sg. *pa-a-i*, pret. 1 sg. *pi-iḫ-ḫu-un*, 2 sg. *pa-it-ta*, 3 sg. *pa-a-iš*, imper. 2 sg. *pa-(a)-i*, 3 sg. *pa-a-u*. There are also *mi*-conjugation forms such as *pi-i-e-mi*, 2 sg. *pi-e-i-ši*, 3 sg. *pi-e-ya-zi* *pi-iz-zi*. The IE forms with diphthong *ai-* prevent us from connecting this verb with the IE root *ei-* 'go' [76 and fn. 99].

*a-ra-(a)-i*, 3 pl. *a-ra-a-an-zi*, pret. 3 sg. *a-ra-(a)-iš* *a-ra-a-eš*, 3 pl. *a-ra-a-ir* 'rise, rebel' : Skt. *rīyate* 'be dissolved, flow', Arm. *ari* 'rise', ὀρίνω 'stir, raise', Lat. *orior* 'arise'.

pres. 3 sg. *ma-a-i*, imper. 3 sg. *ma-a-ú* 'grow, ripen' beside *mi-ya-ri*, imper. 3 sg. *mi-i-ya-ru*, part. *mi-ya-an-zi* : Skt. *mayas* 'delight', Lat. *mitis* 'mild'.

*ne-iḫ-ḫi*, 2 sg. *na-it-ti*, 3 sg. *na-a-i*, pret. 1 sg. *ne-iḫ-ḫu-un*, 3 sg. *na-a-iš*, 3 pl. *na-a-ir*, imper. 2 sg. *na-(a)-i*, 3 sg. *na-a-ú* 'lead, turn' beside *ne-ya-u-e-ni*, 3 pl. *ne-(ya)-an-zi*, pret. 3 sg. *ne-ya-at* *ni-ya-at*, 3 pl. *ne-i-e-ir*, imper. *ne-ya-(at)-tin* : Skt. perf. *nināya*, pres. *nayati* 'lead'.

**238c.** From the ablaut base which is entered in Pokorny, Idg. et. Wörterb. 1.86 f. (1949), as *auēs-* 'leuchten' we get the verb 'see'.<sup>65</sup> In Hittite a number of forms lack the final *s*, which must therefore be a formative element. I have discussed the possible IH reconstructions in IHL 45 f., and they need not be listed here. The verb is citable as follows: 1 sg. *u-uḫ-ḫi*, 2 sg. *a-ut-ti*, 1 pl. *ú-me-e-ni* *a-ú-(um)-me-ni*, 2 pl. *(a)-uš-te-ni* *a-ut-te-ni*, pret. 1 sg. *u-uḫ-ḫu-un*, 2 sg. *a-uš-ta*, 3 sg. *a-(ú)-uš-ta*, 1 pl. *a-ú-me-en*, 3 pl. *a-ú-(e)-ir*, imper. 2 sg. *a-ú*, 3 sg. *a-uš-du* beside pres. 3 sg. *a-uš-zi*, 3 pl. *ú-wa-an-zi*, imper. 1 sg. *ú-wa-al-lu*, 3 pl. *ú-wa-an-du*.

#### Sanskrit Perfects Similar to Hittite Diphthongal Stems

**239a.** Sanskrit possesses three types of perfect formation which show remarkable correspondences with Hittite *ḫi*-conjugation verbs of the third class. The first is typified by 1 sg. *ne-iḫ-ḫi*, 3 sg. *na-a-i* : Skt. 1 sg. *ninaya*, 3 sg. *nināya*.

<sup>63</sup> Sturtevant, Lang. 4.2 (1928); Pedersen, Hitt. u. IE. 113 (1938).

<sup>64</sup> In point of meaning *ap-pa-a-i* 'he, it is finished' is appropriate; *ḫu-wa-a-i* 'he has fled, he flees, he marches', less so.

<sup>65</sup> I still hold to this etymology, as defended in IHL 45 f. (1942). A rival etymology ( : IE *aw-*, *awēi-* 'perceive', Pokorny, Idg. et. Wörterb. 1.78 (1949), is supported by Pedersen, Hitt. u. IE 172 f. (1938).

If we disregard the Sanskrit reduplication and set up IH 1 sg. *no'yxe*,<sup>66</sup> we get in Hittite (with loss of ' and contraction of *o* and *y* to a diphthong *oy*, which yielded Hitt. *e* [61], and change of *-xe* to *-xa*, with final *i* from the *mi*-conjugation) the recorded form *ne-iḫ-ḫi* [*nexi*]. From the same IH *no'yxe* we get IE (with loss of ' and also of *x*) *\*noya*, Skt. *nināya*. If we similarly set up IH 3 sg. *no'ye*, we may derive Hitt. *na-a-i* by change of *o* to *a* and contraction of *i* from IH *y* with final *i* from *e* in the later stages of the Hittite language [40, 42]. In IE the same reconstructed IH form yields (with lengthening of *o* on loss of ' before consonantal *y*) IE *nōye*, whence Skt. *nināye*. There can be little doubt that this is the way in which Hitt. *ne-iḫ-ḫi* and Skt. 1 sg. *nināya* and 3 sg. *nināya* originated. If we assume that IH *no'ye* is the source of Hitt. *na-a-i*, it is strange that we find no trace of early Hitt. [-ye].<sup>67</sup> See also [235]. Similarly we may analyze the Hittite *ḫi*-conjugation verbs in final *-ai*, in which we have seen the reflection of the Skt. perf. *iyāya* 'he went' [238b]. In this case, however, we have no clear evidence for the former presence of a laryngeal before the semivowel.

**239b.** The corresponding formation from roots in final *eu* is common in Sanskrit, e.g. *susrava* : *susrāva* 'flowed'; but in Hittite it is represented only by *u-uḫ-ḫi* 'see', whose 3 sg. is *a-uš-zi* of the *mi*-conjugation. If we may assume that the imper. 2 sg. *a-ū* 'see!' was at one time homonymous with the pres. 3 sg., as *da-a-i* 'place!' is homonymous with *da-a-i* 'he places', we are tempted to infer IH *Ao'uxe* : *Ao'we* > Hitt. *u-uḫ-ḫi* : *\*a-ū*; but see [238b, 239a, 240].

Perhaps another *ḫi*-conjugation verb of this type may survive in the word for 'loosen, unharness' ( : λύω, Lat. *solvo*, *solūtus*); 3 sg. *la-a-i*, 3 pl. *la-a-an-zi*, pret. 1 sg. *la-a-ū-un* *la-a-nu-un*, imper. 2 pl. *la-a-tin*, part. *la-a-an-za*, midd. 3 sg. *la-it-ta-ri*. I venture to suggest that the most primitive of all the Hittite forms may be the pret. 1 sg. *la-a-ū-un* and that the pres. 3 sg. *la-a-i* may be a substitute for *\*la-a-u*.

**239c.** The third Sanskrit formation to be compared with the Hittite diphthongal stems is suggested by the pair Skt. *dadhau* 'he placed' : Hitt. *da-a-i* 'he places'. We do not maintain that in this word Hittite has substituted an *-ai* for original *-au*; we have noted the abundant evidence in Sanskrit and elsewhere that the word for 'put, place' had a final radical *y* in many forms. Rather, the Sanskrit perfect has in this word substituted final *-au* for *-ai*. A clear parallel is the shift from perf. *siṣāya* (RV) to classical *sasau* 'he bound'.<sup>68</sup> In several words, however, the Sanskrit ending *-au* must be original. Probably Skt. *jajñau* and Lat. *nōvīt* come from IE *gnōu* and *gnōwe*, respectively. Very likely Skt. *dadau* 'he gave' is more original than Hitt. *da-a-i* 'he takes', in view of the numerous related forms like Lat. *duim* 'dem', Umbr. *purdouitu* 'porricito', Lith. *daviaũ* 'I gave', OCS *davati* 'to give'.

### Prehistory of Diphthongal Stems

**240.** It seems clear that we must account for at least four formations in the third singular perfect of diphthongal stems, such forms as (1) Skt. *nināya* and

<sup>66</sup> See IHL 54 (1942).

<sup>67</sup> See Sturtevant and Trager, Lang. 19.217-20 (1943).

<sup>68</sup> Compare the locative singular of *i*-stems noun (e.g. *agnau* 'in the fire') on the analogy of such forms as *çatrau* from *çatrus* 'enemy'.

(2) *susrāva*, (3) Hitt. *da-a-i* 'puts, places' and *na-a-i* 'leads, turns', and (4) Hitt. *\*au* 'sees', *\*lau* 'loosens', Skt. *jajñau* 'he knew', *dadau* 'he gave'.

We have noted [239a] a possible way of combining Hitt. *na-a-i* 'he turns' with Skt. *nināya* 'he led'. But this process cannot account for final *-ai* in early Hittite or for final *-au* in Hittite of any date. Skt. *-āya* and *-āva* in third singular perfect (e.g. *nināya* and *susrāva*) are apparently modernizations of old forms with final *-ai* and *-au*. I think we must assume that all perfects except consonant stems had third singular in *-āi* or in *-āu* in pre-Aryan and in pre-Hittite. No doubt both these finals date back to IH in the third singular of perfects; in Hittite, final *-ai* came to be preferred, and in Sanskrit, final *-au*. In all Sanskrit perfects except those from the roots in final *-ā*, the ending of the consonant stems came to be added. Since a similar development appears in Lat. *nōvīt*, etc., we may perhaps date the process back to IE times.

#### The Medio-Passive<sup>69</sup>

**241.** The Hittite medio-passive voice corresponds roughly in meaning to the Greek and the Sanskrit middle. It is sometimes hardly distinguishable in meaning from the active; sometimes it has a reflexive sense (either with a reflexive direct object or merely suggesting a peculiar interest on the part of the subject), and besides it may have a passive force. For details, see [2.375-8].

The medio-passive is marked by its peculiar personal endings, for which see [278-90].

In general the medio-passive is formed from the same stem as the active, but some peculiarities in the use of the thematic vowel require attention.

There are some instances of *a* instead of *e* > *i* in the third singular, although the active verb scarcely shows *a* here outside of the stems in *-i-ya-*. From denominatives in *a(e)*, we have middle *šu-wa-at-ta-ri* and *šu-wa-ru*; from the thematic present stem of *na-a-i* (cf. Skt. *nayati*) we have midd. *ne-ya-ri* and *ne-i-ya*. This tendency of thematic verbs to substitute *a* for *e* in the third singular may stand in some relation to the frequent use of *a* as a third singular (occasionally second singular) ending of middle consonant stems (e.g. *e-ša*, *e-ša-ri* 'he sits', *ša-li-(i)ga* 'he lies with', *pa-aḥ-ša-ri* 'he protects', *ú-e-ḥa-at-ta(-ri)*, *ú-e-ḥa-at-ta-at*, *ú-e-ḥa-at-ta-ru* 'turn' beside act. *ú-e-iḥ-zi*).

If *a* appended to a verb stem before the addition of personal endings corresponds to anything in IE grammar, it is probably the thematic vowel *o*. If we assume an original *o* here, the Gothic middle 1 sg. *nimada*, 2 sg. *nimaza*, 3 sg. *nimada* retains an original *o* > *a* in contrast to analogical *lúomai*, *lúeai*, *lúerai*.

#### Mood

**242.** Hittite has two moods, indicative and imperative. The latter is used to express positive commands and, in the first person, the determination by the speaker of his own course of action. The indicative is used in other situations.

<sup>69</sup> Hrozný, Congr. 1.155-64 (1928); Sturtevant, TAPA 60.28-33 (1929), Lang. 7. 242-51 (1931); Götze, AM 258 f. (1933); Pedersen, Hitt. u. IE 100-11 (1938); Friedrich, Elementarb. 1. 35 f., 60-2 (1940).

The present indicative with the particle *li-e* expresses a negative command [2.5a, 386].

The two moods are distinguished by their personal endings, for which see [246–90].

#### Tense

**243.** Hittite has two tenses, present and preterit. The preterit regularly expresses the past, and the present is used for all other time relations. The historical present occasionally occurs [2.401d].

The present of the *mi*-conjugation corresponds in general to the IE present, although it includes stems that in IE belong to the aorist. The present of the *hi*-conjugation corresponds in general to the IE perfect, but with considerable influence from forms that in IE grammar are called present and aorist. The preterit of the *mi*-conjugation corresponds in general to the IE imperfect, but its third plural is from the IH perfect. The preterit of the *hi*-conjugation has no connection with the IE pluperfect; it is a composite of perfect forms, forms that in IE grammar would be called aorists, and analogic new creations.

The tenses are distinguished by their personal endings, on which see [246–90].

#### Number

**244.** The Hittite verb has two numbers only. A neuter plural subject always takes a verb in the singular;<sup>70</sup> but after a neuter singular pronoun following a plural antecedent a plural verb may appear [2.45a, 48, 372d, 373].

#### Person

**245.** Hittite has the familiar three persons of the IE languages. They are discussed in detail below.

#### The Personal Endings

#### The Endings of the *mi*-Conjugation

#### Primary Endings

**246.** All *mi*-conjugation verbs have the ending *mi* in the present first singular; it is identical with the ending of non-thematic presents in IE. It may be compared with the Luwian first singular ending identified by F. Sommer<sup>71</sup> in the forms:  $\parallel \check{s}i-wa(?)-ri-ya-wi(?) \parallel ku-li-wi \parallel ar-kam-ma-na-al-la-a-ú-i \parallel ku-la-ni-wi$ . Hittite shows first plural endings *-u-e-ni*, *-u-en* alternating with *-um-me-ni*, *-um-me-in* and we have ascribed this variation to the pre-IH phonetic law according to which *ɤhw* became *um* [69]. Possibly a similar development lies behind Luw. pres. 1 sg. *-wi* and Hitt. and IE pres. 1 sg. *-mi*. This must remain uncertain until further evidence is discovered.

**247.** The regular ending of the present second singular in the *mi*-conjugation is *-ši*, corresponding to the *-si* of IE presents. Frequently the *hi*-conjugation ending *-ti* (from IH *-the*) intrudes. For 2 sg. *iš-ta-ma-aš-zi*, see [248].

<sup>70</sup> W. Drophla ap. Sommer, Bil. 168 (1938).

<sup>71</sup> AU 231 and fn. 1 (1932); cf. HG<sup>1</sup> 254 fn. 75 (1933).

**248.** The regular ending of the present third singular of the *mi*-conjugation is *-zi* < IH *-ty* [82b]. From stems in *-š* we should expect *-ti*, and *da-ma-aš-ti* (KBo. 5.9.2.26) actually occurs. The coexistence of this form with analogical *da-ma-aš-zi* led to occasional forms like *iš-ta-ma-aš-zi* beside 2 sg. *iš-ta-ma-aš-ti* 'you hear'. The other Anatolian languages, as far as is known, retain IH *-ty* without the Hittite change to *-zi*.

**249.** The present first plural usually ends in *-me-ni* when the stem ends in *-u*, which may be zero grade either of IH *-ew* or of IH *-eh-* [69]; or in *-u-e-ni* after any other stem final. IE made use of the doublets thus produced to distinguish dual and plural, but Hittite retains the original distribution.<sup>72</sup> Hittite must have inherited first plural endings beginning with *-we-* and *-me-* (whether *-wes* and *-mes*, *wen-i* and *-men-i*, I cannot say<sup>73</sup>). The rarer first plural endings *-wani* and *-mani* may be variant ablaut forms; Rosenkranz' (IF 56.283—1938) suggestion that the vowel *a* may be partly due to Luwian influence seems to have nothing in its favor.

**250.** The present second plural of both conjugations regularly ends in *-(t)eni*, cognate with Ved. *-thana*. The rarer ending *-(t)tani* is comparable with first plural *-wani* beside *-weni* [249].

**251.** The present third plural of both conjugations usually ends in *-an-zi*, which is the regular phonetic development of IH *-onty* or *-nty*. The form *-en-zi* from IH *-enty* appears occasionally; *i-(e)-en-zi* = *i-ya-an-zi* 'they make', *ti-en-zi* = *ti-(ya)-an-zi* 'they take their stand', *ú-en-zi* = *ú-wa-an-zi* 'they come'. In all these words the variants with *-an-zi* are more frequent—usually far more frequent—than those with *-en-zi*.

### Secondary Endings

**252.** The preterit of the *mi*-conjugation is distinguished from the present by different personal endings, which correspond in large part with the secondary endings of the IE languages.

**253.** The preterit first singular of *mi*-conjugation verbs with stems in a final consonant ends in *-un* (e.g. *e-šu-un* 'I was', *še-e-šu-un* 'I slept', *ú-e-ḫu-un* 'I turned', *ku-e-nu-un* 'I struck'); if the stem ends in a vowel, the ending of the first singular preterit is *-nu-un* (e.g. *ar-nu-nu-un* 'I brought', *uš-ki-nu-un* 'I was seeing'). The only exception I have noted is *pa-a-(u)-un* 'I went', on which see [220a]. This must be compared with such first singular endings as those of *ῆα ἔα* 'I was', *ῆα* 'I went', *ἔστησα* 'I set', *ἔδειξα* 'I showed'. Hitt. *-un* and Gk. *-a* alike come from IH syllabic *-m*. None of the explanations for the ending *-nun* of the vowel stem verbs mentioned on page 254 of the first edition of HG seems altogether satisfactory.

**254.** The preterit second singular<sup>74</sup> of thematic verbs sometimes retains

<sup>72</sup> Petersen, AJP 53.197 (1932), objects that the dual was a very ancient category and that therefore the IE distribution of the first plural endings must be the more archaic. Granted the antiquity of the dual in the noun and in the third person of the verb, IH may have resembled Greek in lacking first dual forms for the verb.

<sup>73</sup> Bonfante, AJP 67.302 f. (1946), touches upon this matter, but I cannot understand his remarks.

<sup>74</sup> Götze, Madd. 58-60 (1928).



the inherited ending -š, e.g. *da-aš-ki-eš* 'you took', *zi-ik-ki-eš* 'you placed', *me-mi-iš-ki-iš* 'you spoke', *ha-at-ra-a-eš* 'you wrote', *ták-šu-la-a-eš* 'you made peace'. More frequently among thematic verbs and constantly elsewhere in the *mi*-conjugation the forms of the third person are substituted. The confusion probably started with preterits of the *hi*-conjugation from stems extended by š (s-aorists in the terminology of IE grammar), where IH second singular š plus š and third singular -š plus *t* both yielded -š [82a].<sup>75</sup>

**255.** The preterit third singular of the *mi*-conjugation always ends in *t*. After a consonant, final *t* was lost [82a], but analogy restored it in all forms of this category. After a consonant, final *t* is necessarily written with a non-phonetic vowel, and in the preterit third singular of the *mi*-conjugation the sign employed is nearly always -*ta*; e.g. *e-eš-ta* 'he was', *hi-en-ik-ta* 'he determined', both to be pronounced as monosyllables.

This virtually consistent orthography leads W. Petersen<sup>76</sup> to read *eš-ta*, *henk-ta*, etc., and to trace the final -*ta* to the second singular ending. The only argument that can be used against him is the usual spelling in the preterit third singular of vowel-stem verbs; e.g. *te-ik-ku-uš-ši-e-it* 'he showed' beside pres. *te-ik-ku-uš-ša-mi*, *te-ik-ku-uš-ša-nu-ut* 'he showed' beside 1 sg. *te-ik-ku-uš-ša-nu-nu-un*, *i-ya-(a)-at i-e-it* 'he made' beside pres. *i-ya-mi*, *ha-at-ra-it* 'he wrote' beside pres. *ha-at-ra-a-mi*. There are only a few instances of final -*ta* after a vowel in the preterit third singular;<sup>77</sup> e.g. *pa-it-ta* = *pa-it* 'he went', *ta-ni-nu-ut-ta* = *ta-ni-nu-ut* 'he established', *te-ip-nu-ut-ta* = *te-ip-nu-ut* 'he reviled'. To me this orthographical argument seems to settle the matter as far as the *mi*-conjugation is concerned. Cf. [269].

**256.** The preterit first plural and second plural of nearly all verbs end in -*wen* (or -*men*, if the last phoneme of the stem is *u*-) and -*ten*, respectively. These correspond to the present endings -*weni* (-*meni*) and -*teni*; but I am not sure of the precise history of the several forms. No doubt the preterit endings originated in the *mi*-conjugation and spread to the *hi*-conjugation.

**257.** The ending of the preterit third plural is -(*e*)*ir* (*ni-in-ki-e-ir*, *ni-in-ki-ir*, *hi-in-ki-ir*, *e-še-ir*, *e-ku-i-e-ir*, *e-ku-ir*, *e-ip-pir*). There are a very few traces of an equivalent ending -*ar*,<sup>78</sup> e.g. *zi-na-ar*, *pí-iš-kar*, *ú-e-mi-ya-ar*(?). IH -*ēr* > -*ir* is to be compared with Lat. -*ēre*, and -*ar*, with Skt. -*ur*, two ablaut forms of the original perfect ending [272].

### Imperative Endings

**258.** The rare imperative first singular of both conjugations<sup>79</sup> usually ends in *llu* after a vowel stem or in *allu* after a consonant stem; e.g. *pí-iš-ki-el-lu* (KUB 6.45.3.66) 'I will give', *me-ma-al-lu* (KUB 6.46.4.42) 'I will speak', *i-ya-al-lu* (KUB 14.11.3.19) 'I will make', *ú-wa-al-lu* (KUB 14.8.2.42) 'I will see' *ag-ga-*

<sup>75</sup> It is not likely that we should assume use of the third person for the sake of politeness.

<sup>76</sup> AJP 53.203 f. (1932).

<sup>77</sup> Sommer, AU 55 (1932), Bil. 144 (1938).

<sup>78</sup> Ehelolf, OLZ 1933. 2 fn. 6; Otten Telipinu-Mythus 9 fn. k (1942).

<sup>79</sup> J. Friedrich, IF 43.257 f. (1925).



*al-lu* (KBo. 4.14.2.35) 'I will die', *aš-nu-ul-lu* (KUB 14.8.2.7) 'I will seat'. From *eš-* 'be' we have also *e-eš-lu-ut* and *e-eš-li-it*.

**259.** The imperative second singular of the *mi*-conjugation regularly consists of the bare stem, as frequently in IE. The final vowel is always *-i* in stems with suffix *-ske/a-*, but stems in *ya-* show written *-ya* in the imperative. Denominatives in *-a(e)-* show imperatives like *ar-ra-a-i* 'wash!', *ha-at-ra-a-i* 'write!', *tar-kum-ma-i* 'explain!'. If the stem ends in two consonants, a non-phonetic vowel may be written or a consonant (especially *n*) may be omitted; e.g. *kar-aš* 'cut off!' [72], *li-i-ik* = *li-in-ik* = *li-in-ki* 'swear!', *ni-ik* = *ni-in-ka* = *ni-in-ga* 'rise, become intoxicated!'.

Verbs in suffix *nu-* and the defective verb *i-* 'go' take a suffix *-t* in the imperative second singular; e.g. *i-it*, *ar-nu-ut* 'bring!'. With this compare the IE imperative ending *-dhi*; Hitt. *i-it* corresponds with *iθi*, Skt. *ihi* 'go!'. In the RV, verbs with suffix *nu-* take the ending *-dhi* or *-hi* about three-fourths of the time.<sup>80</sup> Since Hittite does not lose final vowels, we must assume analogical loss of final *i* in Hittite or addition of *i* from some source in IE.

**260.** The imperative third singular of the *mi*-conjugation always ends in *-tu*, cognate with the Indo-Iranian ending *-tu*.

**261.** The imperative second plural of all verbs ends in *-ten*, which is thus identical in form with the preterit second plural [256, 276].

**262.** The imperative third plural of all verbs ends in *-ntu*, cognate with Indo-Iranian ending *-ntu*, *-atu*.

### The Endings of the *hi*-Conjugation

#### Primary

**263.** We have stated [231–9] reasons for identifying the Hittite *hi*-conjugation with the IE perfect tense. The present first singular of the *hi*-conjugation always ends in *hi*.<sup>81</sup> This ending seems always to have been appended directly to a final consonant of the stem (e.g. *a-ša-aš-hi* 'I set'). Occasionally a non-phonetic vowel is introduced to make it possible to write double a voiceless stop of the stem, or the voiceless *-x* of the ending or both at once (e.g. *ša-ag-ga-aḥ-hi* 'I know' *ši-pa-an-taḥ-hi* 'I pour a libation'; pronounced [sakxi, spandxi]). In vowel stem verbs the *h* of the ending is normally written double thereby indicating *[-xi]* rather than *[-γi]* [53]. Thus we have *da-aḥ-hi* 'I take' *me-ma-aḥ-hi* 'I speak' *te-iḥ-hi* 'I place'.

The Luvian preterit first singular seen in || *ta-pár-ḥa* 'I ruled' retains the IH first singular perfect ending *-xa* in its value as a past. The Hittite change of final *-(h)ḥa* to *-(h)hi* is part of the spread of final *-i* to all present active forms of the finite verb [331].

**264.** The present second singular of the *hi*-conjugation almost always ends in *-ti* (usually the *t* is written double if that is possible). This represents the IH ending *-the*, which yielded IE *-tha* (*οἶσθα* Skt. *vettha* 'you know'). The change of the final vowel to *i* was a part of the spread of that vowel to all present forms

<sup>80</sup> Whitney, Skt. Gramm.<sup>2</sup> 257.

<sup>81</sup> The variant *a-ša-aš-ḥé* (KBo. 3.28.2.24) is scarcely significant.

of the active finite verb. The intrusion of the ending *-ši* of the *mi*-conjugation is much rarer than the use of *-ti* for *-ši* in the *mi*-conjugation.

**265.** The present third singular of consonant stems of the *hi*-conjugation always ends in *-i*, which must correspond with the perfect ending *-e* of IE (e.g. *ōīde*). Final *-e* was changed to *-i* under the influence of the primary endings of the *mi*-conjugation along with the spread of that final vowel to all present active endings.

F. Sommer<sup>82</sup> interpreted *pār-ši-ya* 'breaks' as third singular of the *hi*-conjugation with dissimilative change of *-iye* to *-iya* (cf. *pār-ši-ya-aḥ-ḥi*); but in view of *pār-ši-it-ta-ri*, *pār-ši-ya-ad-da-ru*, *pār-ši-it-ta-ru*, it is probably a middle form [278]. The regular *hi*-conjugation form *\*parsiyi* became *pa-ar-ši* [61a], and the disparity of this with the remainder of the conjugation led to a preference for *mi*-conjugation forms (*pār-ši-ya-az-zi*), and especially for middle *pār-ši-ya*. From contracted *pa-ar-ši* developed third plural *pār-ša-a-an-zi* (KUB 25.14.4.9).

Verbs of the third class of the *hi*-conjugation have the bare stem in the present third singular, except that *au*- 'see' and perhaps one or two other verbs have adopted the ending of the *mi*-conjugation (*a-uš-zi*, *ma-uš-zi*). The final diphthong of the third class was extended to verbs of the second class in IH times.

**266.** The plural endings of the present of the *hi*-conjugation are identical with those of the *mi*-conjugation; the third plural ending was certainly taken from the IH present, and the other two are probably from the same source [249–51]. As in the *mi*-conjugation, there are occasional instances of third plural in *-enzi*; e.g. *ḥa-at-tin-zi*, *ši-ip-pa-an-tin-zi*, *ú-tin-zi*.

#### Secondary personal endings in preterit

**267.** The preterit of the *hi*-conjugation is not an inherited category. At first there was a single set of forms for present and past, both functions being inherited from the IH perfect (cf. the Germanic preterito-presents and ordinary preterits). Then in pre-Hittite a new preterit was developed under the influence of the tense system of the *mi*-conjugation.

**268.** The preterit first singular of the *hi*-conjugation ends in *-(ḥ)ḥun*, a contamination of the inherited *-(ḥ)ḥa* (cf. Luwian|| *ta-pār-ḥa* 'I ruled, governed') and the ending *-un* of the *mi*-conjugation. The stem shows the same forms as before the present ending *-(ḥ)ḥi* [263].

**269.** The preterit second singular of the *hi*-conjugation usually ends in *-(t)ta* from IH *-the* of the perfect. When this ending became *-(t)ti* in the present it retained its original form in its preterit use.

All types of *hi*-conjugation verbs sometimes use a stem extended by *š* in preterit second singular and third singular; it is apparently to be identified with the *s*-aorist stem of IE. Sometimes this *š* is final in the second singular as well as in the third singular; e.g. *da-a-aš* 'you took', *tar-na-aš* 'you put in', *da-(a-)iš* 'you placed', *pa-iš* 'you gave'. Here we must assume simplification of final *-šš*, as in the Sanskrit *s*-aorist. Since final *-št* in the third singular also became *-š*, there resulted identical form in the two persons, and this situation opened the

<sup>82</sup> BoSt. 10.65 f. (1924).

way to an extensive use of third singular for second singular in the preterit [254]. Consequently it is uncertain what phonetic interpretation should be given to 2 sg. *ša-ak-ta* 'you knew', *pa-aḥ-ḥa-aš-ta* 'you protected', *pi-eš-ta* 'you gave', etc.; they may have the *hi*-conjugation ending *-(t)ta* of the second person, in which case they are dissyllabic forms; or they may be the analogically restored third singular in final *-t*, used in second singular value, in which case they should be read [*sakt*, *pahst*, *pest*]. On the whole it seems probable that the second singular forms are dissyllables and the third singular monosyllables, although they are frequently written quite alike.

**270.** The preterit singular of the *hi*-conjugation is formed in several different ways, and frequently two or three equivalent forms are citable from a single verb.

**270a.** Preterits third singular consisting of the stem plus *š* are usual in the third class, common in the second, and comparatively rare in the first. Examples are: *da-a-iš* 'he placed', *da-a-aš* 'he took', *pi-en-ni-iš* 'he drove', *da-a-li-iš* 'he left', *a-ak-ki-iš ag-ga-aš*<sup>83</sup> 'he died'. The ending *š* in these forms represents IH *-št*, in which *-s* is the suffix that formed IE *s*-aorists, and *t* the third personal ending.

**270b.** Preterits third singular consisting of such forms as those in [270a] plus *-ta*; e.g. *a-(ū)-uš-ta* 'he saw', *na-iš-ta na-eš-ta* 'he turned', *pi-en-ni-iš-ta pi-en-ni-eš-ta* 'he drove', *da-li-eš-ta* 'he left'. Forms in *-eš-ta* are characteristic of verbs of the second class.

**270c.** Preterits third singular consisting of the verb stem plus *-ta* occur occasionally from verbs of the first class; e.g. *ak-ta* 'he died', *a-ša-aš-ta* 'he beset', *iš-tap-ta* 'he shut up, enclosed', *ḥa-(a-)aš-ta* 'he opened'. Here, as elsewhere, there is no possibility of deciding whether the vowel of final *-ta* is to be pronounced [269].

**271.** The preterits first plural and second plural of the *hi*-conjugation do not differ, as far as I know, from the corresponding forms of the *mi*-conjugation.

**272.** The third plural preterit of the *hi*-conjugation is the inherited third plural of the IH perfect. The ending *-er* > *-ir* corresponds to the long vowel form of Lat. *-ēre*. < IH *-e'r*. The rare ending seen in *zi-na-ar* 'they finished' and *pi-iš-kar* 'they were giving' corresponds to the Sanskrit third plural perfect and aorist ending *-ur* < IH *-v'r*. The use of this old perfect form in preterit value is in harmony with the more usual development of the perfect tense in the historic Indo-European languages. Its specialization in this force was undoubtedly connected with the adoption of the *mi*-conjugation third plural ending *-an-zi* in the present of the *hi*-conjugation.

**272a.** The third class of the *hi*-conjugation shows in third plural preterit either a form from the suppletive stem in *-ya/e-* (e.g. *ti-(i-)e-ir*, *pi-i-e-ir*) or by analogy with the second class, such forms as *da-a-ir*, *na-a-ir*.

#### Imperative

**273.** For the imperative first singular, see [258].

**274.** The second singular of the first class of the *hi*-conjugation is often like

<sup>83</sup> Pedersen, Hitt. u. IE 96 (1938), may be correct in interpreting these forms as [akkes] and [akks], respectively.

the verb stem; e.g. *ša-a-ak* 'know!', *a-an-aš* 'wipe!', *a-ak* 'die!'. It has a final vowel *-i* in *ša-ki* and *pa-aḫ-ši* 'protect!'. The imperative second singular of verbs of the second class is often like the stem (*da-a* 'take!', *tar-na* 'put in!'). About equally frequent is the change of the stem vowel *-a* to *-i* (*me-mi* 'say!', *u-un-ni* 'drive hither!'). The imperative second singular of verbs of the third class is like the stem (*da-a-i* 'place!' *na-a-i* 'lead! turn!', *a-ú* 'see!').

**275.** The imperative third singular of the *hi*-conjugation usually has the ending *-u*, which takes the place of the second member of a final diphthong of the third singular present. Examples are: *a-ku* from *a(k)k-* 'die', *me-ma-a-ú* from *me-ma-a-* 'speak', *da-a-ú* from *da-a-i-* 'place'.

The ending *-tu* of the *mi*-conjugation is common in verbs of the first class, and it is found, with or without preceding *š*, in verbs of the second and third classes; e.g. *ak-du* from *a(k)k-* 'die', *ša-a-ak-du* from *šakk-* 'know', *šar-ra-at-tu* from *šar-ra-* 'break, divide', *ta-(a)li-eš-du* from *ta-a-la-* 'leave, let go', *a-uš-du* from *a-u-* 'see'.

**276.** The imperative second plural of the *hi*-conjugation differs from the same person of the *mi*-conjugation only in a certain tendency of the second and third classes to use the stem in *-š*; *me-mi-eš-tin*, *tar-ni-iš-tin*, *na-iš-tin na-eš-tin*.

**277.** The imperative third plural of the *hi*-conjugation gets its ending *-an-tu* from the *mi*-conjugation [262].

#### The Medio-Passive Endings<sup>84</sup>

**278.** The middle endings of the present and the preterit are based upon common terminations to which may be appended the syllable *-ri* to mark the present, and to which the syllable *-di* or just a final *-t* must be appended in the preterit. The common endings are 1 sg. *-(h)ḥa-* (rarely employed without extension), 2 sg. *-(t)ta*, 3 sg. *-a* or *-(t)ta* 1 pl. *-wa-aš-ta* 2 pl. *-(d)du-ma*, 3 pl. *-an-ta*.

The medio-passive forms are confusingly elaborate. In the present third singular we have these eight formations: suffix *-a* with or without *-ri* (*e-ša* or *e-ša-(a-)ri* 'he sits'); thematic vowel *-a* with or without *-ri* (*ne-i-ya ne-e-ya* or *ne-ya-(a-)ri* 'he turns about'); ending *ta* on consonant stem with or without *-ri* (*ar-ta* or *ar-ta-ri* 'he takes his stand'); ending *-tta* on vowel stem with or without *-ri* (*i-ya-at-ta* or *i-ya-at-ta-ri* 'he goes, marches'). It will be observed that here the employment of the syllable *-ri* at the end of a middle form seems to be optional and without effect upon the meaning. That syllable is more frequent in the present third singular and third plural than elsewhere, but also common in the present first singular. It does not occur outside the present tense.

Under these circumstances we must consider separately the personal endings that appear in all medio-passive forms and immediately follow the verb stem, and the four elements that are attached to fully characterized medio-passive forms and that fix more accurately their mood and tense; these are *-ri*, *-ru*, *-di*, and *-t* (with *-ni* and *-nu* occurring in a single verb).

It will be convenient to start with the latter, which may be described as:

<sup>84</sup> See [241] and fn. 69. Cf. Petersen, AJP 53.204-10 (1932).

## The Signs and Mood of Tense

*-ri*

**279.** Many medio-passive forms may be extended by the syllable *-ri*, which marks them as belonging to the present indicative. As a rule it is possible to omit this syllable without altering the meaning; the four pairs of forms listed in [278] are all alike present third singular indicative middle, whether or not they contain the syllable *-ri*. This syllable is obviously identical with the *r* that marks the medio-passive in Tocharian, Latin, Oscan-Umbrian, Celtic, and Phrygian. In Tocharian, as in Hittite, the suffixed *r* is confined to present forms, but in Tocharian a middle that is not marked by *r* is always a preterit.

In all probability this element is connected with the third plural ending in *r* of certain active verbs in various languages; e.g. Hittite preterites third plural in *-er* > *ir*, such as *e-še-ir e-šir* 'they were', *e-te-ir* 'they ate', *pa-a-ir* 'they went', *i-e-ir* 'they made', *pa-aḫ-šir* 'they protected', *a-ū-e-ir* 'they saw'; Sanskrit perfects and aorists such as *dadūr* 'they gave', *nīnyur* 'they led', *anaīṣur* 'they led'; Latin perfects such as *fuēre* 'they were', *monuēre* 'they advised', *rēxēre* 'they ruled'. It is not quite clear how the shift from active to middle was effected in Indo-Hittite, but the impersonal usage of such middle forms without personal endings as Osc. perf. subjunctive 3 sg. *sakrafīr* 'let one consecrate' and Ir. *canar* 'they shall be singing' is certainly suggestive.<sup>85</sup> English *they say* is equivalent to French *on dit* and also to English *it is said*; I see no reason for emphasizing the volitive character of certain of the Oscan-Umbrian and Irish forms or for citing Hitt. *e-ša-ru* 'let him be seated' rather than *e-ša-ri* 'he seats himself', as W. Petersen<sup>86</sup> does.

*-ru*

**280.** The syllable *-ru* may be appended to the basic middle forms [278] to form imperatives. Obviously these are analogical modifications of forms in *-ri*; *e-ša-ru* goes back to *e-ša-ri*, and *i-ya-an-ta-ru* 'let them march' to indicative *i-ya-an-ta-ri*. The source of the vowel *-u* must have been the final vowel of such active imperatives as *ak-ku-uš-ki-id-du*, *ak-ku-uš-kān-du* 'let him, them, drink', *da-a-ū* 'let him place'.

*-ni, -nu*<sup>87</sup>

**281.** A single verb shows syllables *-ni* in place of *-ri* and *-nu* in place of *-ru*. The forms *wa-ra-a-ni* 'is burnt' and imperative *wa-ra-a-nu* result from dissimilation of the *r* of the inflectional syllables against the radical *r*.

*-di*,<sup>88</sup> *-t*

**282.** My former identification of the Hittite suffix *-ti* with the third singular present suffix, *-tai* = Skt. *-te*, has been effectively answered by Holger Pedersen,

<sup>85</sup> Buck's remarks, *A Grammar of Oscan and Umbrian* 178 f. (1904; cf. p. 362, edition of 1928), are still valid. The suggested development must merely be pushed back to IH times.

<sup>86</sup> Lang. 12.171 f. (1936).

<sup>87</sup> Sommer, KIF 1.120-4 (1930).

<sup>88</sup> Sturtevant, TAPA 60.31 (1929), Lang. 7.246-51 (1931); Petersen, Lang. 12.169-74 (1936).

although he nowhere cites the strongest argument of all, namely, the regular spelling with a single *-t-* where *-tt-* is possible (*ki-iš-ta-ti*, *ar-ta-ti*, *ne-ya-at-ta-ti*, *e-šu-wa-aš-ta-ti*, *i-ya-at-ta-ti*, *e-ša-ti*, *ki-ša-ti*, *šu-ut-ta-ti*, *ki-i-ša-an-ta-ti*, *a-ra-an-ta-ti*, etc.). There can be no doubt that the initial phoneme of the suffix is Hitt. *d* and that it must represent IH *d* or *d'*. In all probability Holger Pedersen has found the correct solution of the riddle of its origin.<sup>89</sup> It must be identified with the imperative second singular active suffix of IE (*to*, Skt. *ihi* 'go!' *dugdhi* 'milk!', *edhi* 'be!'). We have noted the presence of this suffix in its original value in Hittite [259], but in the active voice it always lacks the final vowel. This etymology of the particle *-di* helps one understand its occasional use with present middle forms, especially after the prohibitive particle *li-e* 'nē'.

**283.** If H. Pedersen's etymology of the middle particle *-di* is correct, one should trace to the same source the, generally later,<sup>90</sup> variant *-t*, which is more closely confined to the preterit and the imperative second singular.

#### The Medio-Passive Personal Endings

**284.** The middle personal endings proper precede the tense and mood signs that we have been discussing; they were listed above [278]. The ending of the first singular appears usually in combination with a present sign *-ri*, an imperative sign *-ru*, or a preterit sign *-di* or *-t*. Here are illustrative examples: *i-ya-aḥ-ḥa-ri*, *e-eš-ḥa-ḥa-ri*, *ar-ḥa-ḥa-ri*; *i-ya-aḥ-ḥa-at*, *e-eš-ḥa-at*, *e-es-ḥa-ti*, *ar-ḥa-ti*, *i-ya-aḥ-ḥa-ḥa-at*, *e-eš-ḥa-ḥa-at*. These citable forms imply a first singular personal ending *-ḥa-*, *-aḥ-ḥa-*, *-ḥa-ḥa-*, or *-aḥ-ḥa-ḥa-*. These same endings are implied by the first singular imperatives *u-wa-aḥ-ḥa-ru* *ar-ḥa-ḥa-ru*, etc. It is scarcely possible to doubt the validity of H. Pedersen's<sup>91</sup> suggestion that we interpret *-ḥa-ḥa-* and *-aḥ-ḥa-ḥa-* in these forms as devices for writing *-ḥḥ-*, even though they never occur elsewhere than in the first singular middle.

With the first singular ending *-ḥḥa-* one must compare the Latin first singular passive and deponent ending of such forms as *regor* and *sequor*; in all probability Hitt. *-(ḥ)ḥa-ri* here stands for IH *-xō-r*. More doubtful is the relationship of the Hittite *ḥi*-conjugation first singular ending *-ḥḥi* pret. *-(ḥ)ḥun*, and of the Luw. pret. act. 1 sg. *-(ḥ)ḥa* [263]. These forms evidently belong together and with the IE and IH perfect active; but it is not certain that they have any connection with the medio-passive.

**285.** We have noted the extensive use of third singular forms for second singular forms in the active voice [254, 269, 270c]. It is even more general in the middle voice. In fact, the two persons are scarcely distinguishable. Both are formed with the ending *-a* or *-(t)ta*; but, as far as I know, the second person requires a following *-ri*, *-di*, or *-t*.

**286.** IE preserves only a few traces of the third singular medio-passive with no other suffix than the vowel *o*. Skt. imperf. midd. *aduha* (for *adugdha*) and *aiṣa* = *aiṣta* can be explained as analogical creations based upon pres. 3 sg. *duhe* and *īṣe*,<sup>92</sup> but it is more likely that they are survivals.

<sup>89</sup> Hitt. u. IE 108-11 (1938).

<sup>90</sup> Friedrich, *Elementarb.* 1.37.168 (1940).

<sup>91</sup> Hitt. u. IE 102 (1938).

<sup>92</sup> Brugmann, *Grundr.* 2.3.649 (1916).

**287.** The first plural medio-passive personal ending *-wa-aš-ta* occurs alone in *ar-wa-aš-ta* (KUB 17.21.4.6). It is followed by the tense sign *-di* in *pa-ri-ya-u-wa-aš-ta-ti* (KUB 8.48.1.1). The ending *-waš-ta* is connected in some way with the IH first plural active ending *-wes/wos* and also with Skt. 1 dual *-vahi* 1 pl. *-mahi* and 1 pl. *-metha*; perhaps an IH middle ending *-wed'v* was contaminated with an active ending *-wes/wos*.

**288.** The second plural medio-passive personal ending *-tu-ma* appears alone in pres. *i-ya-ad-du-ma* and *pa-aḥ-ḥa-aš-du-ma* and with additional formative material in pret. *ki-iš-du-ma-at* and pres. *šar-ka-li-ya-tu-ma-ri*. If we may interpret the conflicting evidence as favoring a penultimate *-d-*, the probable etymology is to be found in Skt. *-dhvam* in *addhvam* 'you sat'. The final vowel is from the final *-a* of other middle endings.

**289.** The third plural medio-passive ending *-an-ta* occurs alone in the present, e.g. *e-ša-an-ta e-ša-an-da* 'they sit' and with a following tense sign or mood sign in such forms as pres. *e-ša-an-ta-ri e-ša-an-da-ri* 'they sit', pret. *e-ša-an-ta-at e-ša-an-da-at* 'they sat', *ki-ša-an-ta-at ki-i-ša-an-ta-ti* 'they became', imper. *pa-aḥ-ša-an-ta-ru pa-aḥ-ša-an-da-ru* 'let them protect'. The ending *-an-ta* is cognate with Skt. *-anta*, *-ata* and *-ovto*, *-ato*, both of which are secondary endings.

**290.** The imperative second singular ending *-(ḥ)u* is usually combined with a following mood sign *-di* or *-t*, thus *e-eš-ḥu-ut* 'sit!', *še-eš-ki-ya-aḥ-ḥu-ti* = *še-eš-ki-ya-aḥ-ḥu-ut* 'sleep!' The ending appears alone in *e-ḥu* 'up, come!'

#### VERBAL NOUNS AND ADJECTIVES

##### Participle

**291.** The Hittite verb has a single participle, formed with the suffix *-nt-*. For its formation, see [111]. For its syntax, see [2.434b, 438, 441, 464-6].

##### Infinitives

**292.** Many active verbs and some middle verbs form infinitives in the suffix *-wanzi* or *-manzi* [103]. Frequently infinitives are formed in suffix *-an-na* (rarely *-an-ni*), genitive *-an-na-aš*, both from the verbal nouns in *-a-tar*, [100]. The genitive in *-waš* or *-maš* from the verbal noun in *-war* or *-mar* is also used as an adnominal infinitive [101]. For the syntax of all these forms, see [2.437, 440, 454-9].

**293.** For the structure and use of the supine in *-wan*, see [102].

##### Verbal Nouns

**294.** A verbal noun may be formed from any verb in the language, to carry the meaning of the Greek infinitive with the article or of the Latin construction seen in *dolere malum est*. Such verbal nouns are made with the suffixes *-war*, *-mar* [101], *-tar* [98, 99], and *-šar* [96].

#### PERIPHRASTIC CONJUGATIONS

**295.** The use of the participle with forms of *e-eš-mi* 'I am' is common. Examples are: Ū.UL *ku-iš-ki pa-an-za e-eš-ta* 'no one had gone', *iš-ḥi-ú-ul ki-iš-ša-an i-ya-an e-eš-du* 'let the treaty be made as follows'. See [2.65a, 402-4, 466a].



**296.** A phrase consisting of the verb *har(k)*- 'have' and the neuter singular of the participle forms a compound perfect, somewhat similar in use to the English compound perfect. Examples are: *nu-mu iš-ta-ma-aš-ša-an ku-it har-ki-ir* 'and because they had heard of me', *ma-a-an-wa AMA.KA na-aš-ma A.BU.KA ap-pi-iz-zi-az ku-it-ki wa-aš-ta-nu-wa-an har-kán-zi* 'if finally thy mother or thy father have caused any sin to be committed'. See [2.466b].

**297.** The use of the supine in *-wan* with a form of *da-a-i* 'he places' to form a phrase meaning 'he begins and continues an action' has been briefly treated in [102]. See also [2.461-3].

## PARADIGMS

**298.** These consist of actually quotable forms, but before each paradigm the words employed in it are listed in the third singular with translation. A historical and comparative discussion of the forms has already been given [214-297].

The *mi*-ConjugationRoot Verbs with Radical *e/v/O* and Final Consonant

**299.** [*e-eš-zi* 'he is', *še-eš-zi* 'he sleeps', *ú-e-iḥ-zi* 'he turns'].

## Present

1 sg.	<i>e-eš-mi, še-eš-mi</i>
3 sg.	<i>e-eš-zi, še-eš-zi, ú-(e-)-iḥ-zi wa-aḥ-zi</i>
3 pl.	<i>a-ša-an-zi, ša-ša-an-zi še-e-ša-an-zi, wa-ḥa-an-zi</i>

## Preterit

1 sg.	<i>e-šu-un, še-e-šu-un, ú-e-ḥu-un</i>
2 sg.	<i>e-eš-ta</i>
3 sg.	<i>(e-)eš-ta, še-eš-ta</i>
1 pl.	<i>e-šu-(u-)en, e-eš-u-e-en</i>
2 pl.	<i>e-eš-tin</i>
3 pl.	<i>e-šir e-še-ir, ú-e-ḥi-ir</i>

## Imperative

1 sg.	<i>e-eš-lu-ut e-eš-li-it</i>
2 sg.	<i>e-eš</i>
3 sg.	<i>e-eš-du e-eš-tu, še-eš-du</i>
2 pl.	<i>e-eš-tin e-eš-te-en</i>
3 pl.	<i>a-ša-an-du, wa-ḥa-an-du</i>
part.	<i>a-ša-an-za, wa-ḥa-an-za</i>
infinitive	a. <i>še-(e)šu-(u-wa-)an-zi</i>
	b. <i>wa-ḥa-an-na</i>
verb. n.	<i>e-šu-u-wa-ar</i>

**300.** [*e-iz-za-az-zi* 'he eats', *ḥa-az-zi-iz-zi* 'dries up, withers', *ma-az-za-az-zi* 'he endures', *iš-pár-za-az-zi* 'he escapes'].



## Present

1 sg.	<i>e-it-mi</i>
3 sg.	<i>e-(iz-)za-az-zi, ḥa-az-zi-(iz-)zi, ma-an-za-az-zi</i> (KUB 33.120.1.21) <i>ma-az-za-az-zi, iš-pár-za-(az-)zi</i>
1 pl.	<i>a-tu-e-ni e-du-wa-a-ni</i>
2 pl.	<i>az-za-aš-te-ni</i>
3 pl.	<i>a-da-an-zi a-ta-a-an-zi</i>

## Preterit

1 sg.	<i>e-du-un</i>
2 sg.	<i>ma-az-za-aš-ta, iš-pár-za-aš-ta</i>
3 sg.	<i>e-iz-ta, ḥa-a-az-ta ḥa-(a-)az-za-aš-ta, iš-pár-za-aš-ta, ma-az-za-aš-ta</i>
3 pl.	<i>e-te-ir, ḥa-a-te-ir, iš-pár-te-ir</i>

## Imperative

2 sg.	<i>e-it</i>
3 sg.	<i>e-iz-du, ḥa-a-du</i>
3 pl.	<i>a-da-an-du</i> (KUB 24.14.4.25b)
part.	<i>a-da-an-za</i>
infin. b.	<i>a-da-(a-)an-na</i>

## Forms with suffix -ša-

pres. 2 sg.	<i>ma-az-za-at-ti(?)</i>
3 sg.	<i>e-iz-za-a-i</i>
2 pl.	<i>(e-)iz-za-at-te-ni</i>
pret. 1 sg.	<i>iš-pár-za-aḥ-ḥu-un</i>
2 sg.	<i>e-za-at-ta</i>
3 sg.	<i>iš-pár-za-aš</i>
3 pl.	<i>iš-pár-zi-ir</i>
imper. 2 sg.	<i>e-iz-za-az-za</i>
3 sg.	<i>e-iz-za-du</i>
2 pl.	<i>e-(iz-)za-at-tin (i-)iz-za-at-te-en</i>
3 pl.	<i>e-iz-za-an-du</i>
part.	<i>iš-pár-za-an</i>

**301.** [*ku-en-zi* 'he strikes', *ku-e-ir-zi* 'he cuts', *ḥu-e-ik-zi* 'he frees from witchcraft'].

## Present

1 sg.	<i>ku-e-mi, ḥu-ik-mi ḥu-(u-)uk-mi</i>
2 sg.	<i>ku-e-ši ku-en-ti ku-e-ti</i>
3 sg.	<i>ku-(e-)en-zi, ku-(e-)ir-zi, ḥu-(e-)ik-zi ḥu-(u-)uk-zi</i>
3 pl.	<i>ku-na-an-zi, ku-ra-an-zi, ḥu-(u-)kán-zi</i>

## Preterit

1 sg.	<i>ku-e-nu-un</i>
2 sg.	<i>ku-en-ta</i>

3 sg.	<i>ku-(e)-en-ta, ku-e-ir-ta, ħu-e-ik-ta</i>
1 pl.	<i>ku-e-u-en, ħu-u-ga-u-en</i>
2 pl.	<i>ku-en-tin</i>
3 pl.	<i>ku-e-nir ku-e-ni-ir</i>

## Imperative

2 sg.	<i>ku-e-ni</i>
3 sg.	<i>ku-en-du ku-in-du, ħu-ik-du</i>
2 pl.	<i>ku-en-tin</i>
3 pl.	<i>ku-na-an-du, ku-ra-an-du</i>
part.	<i>ku-na-an-za, ku-ra-an, ħu-u-kán-du-uš</i>
infin. b.	<i>ku-na-an-na, ħu-u-kán-na ħu-ga-an-na</i>

For *ku-en-nu-um-me-e-ni, ku-en-na-at-te-ni, ku-en-na-an-zi, ku-e-en-ni-ir*, etc., see s.v. \**ku-en-na-i* [318].

## Root Verbs with Radical 'e'/'v' and Final Consonant

302. [*e-ip-zi* 'he takes', *e-ku-uz-zi* 'he drinks, gives to drink', *e-eš-zi* 'he sets'].

## Present

1 sg.	<i>e-ip-mi, e-ku-mi</i>
2 sg.	<i>e-ip-ti e-ip-ši, e-ku-uš-ši</i>
3 sg.	<i>e-ip-zi, e-ku-(uz-)zi, a-aš-zi e-eš-zi</i>
1 pl.	<i>ip-pu-u-e-ni, a-ku-e-ni</i>
2 pl.	<i>e-ip-te-(e)ni, e-ku-ut-te-ni e-ku-wa-te-ni</i>
3 pl.	<i>ap-pa-(a)an-zi, a-ku-(wa)an-zi e-ku-wa-an-zi, a-ša-an-zi e-ša-an-zi</i>

## Preterit

1 sg.	<i>e-ip-pu-(u)un, e-ku-un</i>
2 sg.	<i>e-ip-ta</i>
3 sg.	<i>e-ip-ta, e-ku-ut-ta, (a-)aš-ta e-eš-ta</i>
1 pl.	<i>e-ip-pu-en ap-pu-en (KUB 34.77.1.2), e-ku-e-en</i>
2 pl.	<i>e-ip-tin</i>
3 pl.	<i>e-ip-pir e-ip-pi-ir, e-ku-ir e-ku-i-e-ir, e-še-ir</i>

## Imperative

2 sg.	<i>e-ip, e-ku, e-eš</i>
3 sg.	<i>e-ip-du, eš-du</i>
2 pl.	<i>e-ip-tin, e-ku-ut-tin e-ku-ut-te-en, e-eš-te-en</i>
3 pl.	<i>ap-pa-(a)an-du, e-ku-wa-an-du, a-ša-an-du</i>
part.	<i>ap-pa-an-za, e-ša-an-za</i>
infin.	<i>{ a. e-ip-pu-u-wa-an-zi, a-aš-šu-wa-an-zi</i> <i>{ b. (a-)ap-pa-an-na, a-ku-(wa)an-na, a-ša-(a)an-na</i>
sup.	<i>e-eš-šu-wa-an i-iš-šu-wa-an</i>

## Other Consonant Stems

303. [*ħar-ak-zi* 'he perishes', *kar-ap-zi* 'he raises', *wa-ar-ap-zi* 'he washes', *ú-e-ik-zi* 'he asks'].

## Present

1 sg.	<i>kar-ap-mi, ú-e-ik-mi</i>
2 sg.	<i>ḫar-ak-ti, kar-ap-ši, ú-e-ik-ti</i>
3 sg.	<i>ḫar-ak-zi, kar-ap-zi, wa-ar-ap-zi wa-ra-ap-zi, ú-(e)-ik-zi</i>
1 pl.	<i>ḫar-ku-e-ni, kar-ap-pu-u-e-ni</i>
2 pl.	<i>ḫar-ak-te-ni, kar-ap-te-ni</i>
3 pl.	<i>kar-(ap-)pa-an-zi, wa-ar-(ap-)pa-an-zi, ú-e-kán-zi</i>

## Preterit

1 sg.	<i>kar-ap-pu-un, wa-ar-pa-nu-un,<sup>93</sup> ú-e-ku-un</i>
3 sg.	<i>ḫar-ak-ta, kar-ap-ta ka-ra-ap-ta, wa-ar-ap-ta, ú-e-ik-ta</i>
3 pl.	<i>ḫar-ki-e-ir, kar-pir, ú-e-ki-ir</i>

## Imperative

2 sg.	<i>ú-e-ik</i>
3 sg.	<i>ḫar-ak-du, kar-ap-du, wa-ar-ap-du</i>
2 pl.	<i>kar-ap-tin</i>
3 pl.	<i>ḫar-kán-du, kar-pa-an-du</i>
part.	<i>ḫar-kán-za ḫar-ga-an-za, kar-pa-(a-)an, wa-ar-pa-an-za, ú-e-kán-ta-an</i>
infin.	$\left\{ \begin{array}{l} \text{a. } wa-ar-pu-(u-wa-)an-zi \\ \text{b. } ḫar-kán-na ḫar-ga-an-na \end{array} \right.$
verb. n.	<i>kar-pu-u-wa-ar, wa-ar-pu-u-wa-ar, ú-e-ku-wa-ar</i>

**304.** [*ḫar-zi* 'has'].

1 sg.	<i>ḫar-mi</i>
2 sg.	<i>ḫar-ši ḫar-ti</i>
3 sg.	<i>ḫar-zi</i>
1 pl.	<i>ḫar-ú-e-ni ḫar-u-e-ni</i>
2 pl.	<i>ḫar-te-(e-)ni</i>
3 pl.	<i>ḫar-kán-zi</i>

## Preterit

1 sg.	<i>ḫar-ku-un</i>
2 sg.	<i>ḫar-ta</i>
3 sg.	<i>ḫar-ta</i>
1 pl.	<i>ḫar-u-en</i>
3 pl.	<i>ḫar-kir ḫar-ki-ir</i>

## Imperative

2 sg.	<i>ḫar-ak</i>
3 sg.	<i>ḫar-du</i>
3 pl.	<i>ḫar-kán-du</i>

**305.** [*ḫi-in-ik-zi* 'determines', *li-ik-zi* 'swears', *ni-ik-zi* 'is exalted, becomes intoxicated'].

<sup>93</sup> This is a thematic form [221].

## Present

1 sg.	<i>li-ik-mi</i>
3 sg.	<i>hi-(in-)ik-zi hi-in-ga-zi, li-ik-zi li-in-ga-zi, ni-ik-zi</i>
1 pl.	<i>hi-in-ku-wa-ni, li-ku-wa-an-ni</i>
3 pl.	<i>hi-in-kán-zi hi-in-ga-(an-)zi, li-in-kán-zi, ni-in-kán-zi</i>

## Preterit

1 sg.	<i>hi-in-ku-un, li-in-ku-un</i>
2 sg.	<i>li-ik-ta</i>
3 sg.	<i>hi-en-ik-ta hi-ni-ik-ta hi-in-kat-ta, li-(in-)ik-ta li-in-kat-ta</i>
1 pl.	<i>li-en-ga-u-en li-in-ku-u-en</i>
3 pl.	<i>hi-in-kir, ni-in-ki-e-ir ni-in-ki-ir</i>

## Imperative

2 sg.	<i>hi-in-ga, li-in-ik li-i-ik li-in-ki, ni-in-ga ni-in-ga ni-ik</i>
3 sg.	<i>li-ik-du</i>
2 pl.	<i>li-en-ik-tin, ni-ik-te-en</i>
3 pl.	<i>hi-in-kán-du, ni-in-kán-du</i>
part.	<i>li-in-ga-an, ni-in-kán-te-eš</i>

**306.** [*har-ni-ik-zi* 'he destroys', *iš-tar-ni-ik-zi* 'he injures', *ni-ni-ik-zi* 'he lifts, mobilizes', *šar-ni-ik-zi* 'he makes restitution'].

## Present

1 sg.	<i>har-ni-ik-mi, iš-tar-ni-ik-mi, šar-ni-ik-mi</i>
2 sg.	<i>har-ni-ik-ti, iš-tar-ni-ik-ši</i>
3 sg.	<i>har-ni-ik-zi, iš-tar-ni-ik-zi, ni-ni-ik-zi, šar-ni-ik-zi</i>
1 pl.	<i>ni-ni-in-ku-u-e-ni</i> (BO 2823.4), <i>šar-ni-in-ku-e-ni</i>
2 pl.	<i>har-ni-ik-te-ni, ni-ni-ik-te-ni, šar-ni-ik-te-ni</i>
3 pl.	<i>ni-ni-in-kán-zi, šar-ni-in-kán-zi šar-ni-en-kán-zi</i>

## Preterit

1 sg.	<i>har-ni-(in-)ku-un, ni-ni-in-ku-un, šar-ni-in-ku-un</i>
2 sg.	<i>har-ni-ik-ta</i>
3 sg.	<i>har-ni-ik-ta, ni-ni-ik-ta, šar-ni-ik-ta</i>
1 pl.	<i>iš-tar-ni-in-ku-en</i>
3 pl.	<i>har-ni-in-ki-ir har-ni-in-kir, ni-ni-in-ki-ir</i>

## Imperative

2 sg.	<i>har-ni-ik, ni-ni-ik</i>
3 sg.	<i>šar-ni-ik-du</i>
2 pl.	<i>har-ni-ik-te-en</i>
3 pl.	<i>har-ni-in-kán-du har-ni-en-kán-du, ni-ni-in-kán-du</i>
part.	<i>ni-ni-in-kán-te-iš, šar-ni-in-kán-za</i>
infin.	a. <i>har-ni-in-ku-wa-an-zi, šar-ni-in-ku-(u-)wa-an-zi, ni-ni-in-ku-u-an-zi</i>
verb. n.	<i>har-ni-in-ku-u-ar</i>

307. [*iš-ta-ma-aš-zi* 'he hears', *i-da-la-(a)-u-e-eš-zi* 'he becomes bad', *kar-aš-zi* 'he cuts off', *pár-ku-(e)-eš-zi* 'he becomes clean', *pu-nu-uš-zi* 'he asks'].

## Present

1 sg.	<i>iš-ta-ma-aš-mi, kar-aš-mi, pu-nu-uš-mi</i>
2 sg.	<i>iš-ta-ma-aš-ti iš-ta-ma-aš-zi, i-da-la-u-e-eš-ti i-da-la-a-u-e-eš-zi</i>
3 sg.	<i>iš-ta-ma-aš-zi iš-dam-ma-aš-zi, i-da-la-(a)-u-e-eš-zi, kar-aš-zi, pár-ku-(e)-eš-zi, pu-nu-uš-zi</i>
1 pl.	<i>kar-šu-u-e-ni, pu-nu-uš-šu-u-e-ni</i>
2 pl.	<i>iš-ta-ma-aš-te-ni iš-dam-ma-aš-te-ni iš-ta-ma-aš-ta-ni, i-da-(a)-la-a-u-e-eš-te-(e)-ni, kar-aš-te-ni</i>
3 pl.	<i>iš-ta-ma-aš-ša-an-zi, i-da-(a)-la-u-e-iš-ša-an-zi, kar-ša-an-zi, pu-nu-uš-ša-an-zi</i>

## Preterit

1 sg.	<i>iš-ta-ma-aš-šu-un, kar-šu-un, pár-ku-(u)-e-eš-šu-un, pu-(u)nu-uš-šu-un pu-nu-šu-un</i>
2 sg.	<i>iš-dam-ma-aš-ta, pu-nu-uš-ta</i>
3 sg.	<i>iš-dam-ma-aš-ta, i-da-la-u-e-eš-ta, kar-aš-ta, pu-nu-uš-ta</i>
1 pl.	<i>pu-nu-uš-šu-u-en</i>
2 pl.	<i>iš-dam-ma-aš-tin, kar-aš-te-en, pu-nu-uš-tin</i>
3 pl.	<i>iš-ta-ma-aš-šir, kar-še-ir, pu-nu-uš-šir</i>

## Imperative

1 sg.	<i>kar-ša-al-lu</i> (KUB 32.138.2.7, 8, 9)
2 sg.	<i>iš-ta-ma-aš, kar-aš, pu-nu-uš</i>
3 sg.	<i>iš-ta-ma-aš-du, kar-aš-du, pár-ku-e-eš-tu, pu-nu-uš-du</i>
2 pl.	<i>iš-ta-ma-aš-tin iš-ta-ma-aš-te-en</i>
3 pl.	<i>iš-ta-ma-aš-ša-an-du, kar-ša-an-tu, pu-nu-uš-ša-an-du</i>
part.	<i>iš-ta-ma-aš-ša-an, kar-aš-ša-an</i>
infin. a.	<i>iš-ta-ma-aš-šu-wa-an-zi, kar-šu-u-wa-an-zi</i>
verb. n.	<i>iš-ta-ma-aš-šu-wa-ar, pu-nu-uš-šu-u-wa-ar</i>

308. [*al-la-pa-aḥ-ḫi*<sup>94</sup> 'he spits', *ku-ru-ri-ya-aḥ-zi* 'he makes hostile', *ma-ni-ya-aḥ-zi* 'he governs', *\*ne-wa-aḥ-zi* 'he renews', *šu-up-pi-ya-aḥ-ḫi* 'he makes clean', *wa-tar-na-aḥ-zi* 'he communicates']

## Present

1 sg.	<i>ma-a-ni-ya-aḥ-mi, šu-up-pi-ya-aḥ-mi, wa-a-tar-na-aḥ-mi</i>
2 sg.	<i>ku-ru-u-ri-ya-aḥ-ti, ma-ni-ya-aḥ-ti, wa-tar-na-aḥ-ti</i>
3 sg.	<i>al-la-pa-aḥ-ḫi, ku-(u)ru-ri-ya-aḥ-zi, ma-ni-ya-aḥ-zi ma-ni-aḥ-ḫi</i> (KUB 29.1.2.49), <i>šu-up-pi-(ya)-aḥ-ḫi šu-up-ya-aḥ-ḫi, wa-tar-na-aḥ-zi wa-(a)-tar-na-aḥ-ḫi</i> .

<sup>94</sup> Some of the verbs in *-aḥḫ-* have forms of the *ḫi*-conjugation; hence in HG<sup>1</sup> they were assigned to that conjugation. Probably they come from IH presents; see Sturtevant, Lang. 14.239-44 (1938) [224].

- 3 pl. *al-la-pa-aḥ-ḥa-an-zi, ku-u-ru-ri-ya-aḥ-ḥa-an-zi, ma-ni-ya-aḥ-ḥa-an-zi, ne-wa-aḥ-ḥa-an-zi* (IBoT 2.130.5), *šu-up-pt-(ya-)aḥ-ḥa-an-zi, wa-tar-na-aḥ-ḥa-an-zi*

## Preterit

- 1 sg. *al-la-pa-aḥ-ḥu-un, ku-ru-ri-ya-aḥ-ḥu-un, ma-ni-ya-aḥ-ḥu-un, ne-wa-aḥ-ḥu-un, šu-up-pt-ya-aḥ-ḥu-un, wa-(a-)tar-na-aḥ-ḥu-un*  
 2 sg. *ma-ni-ya-aḥ-ta*  
 3 sg. *al-la-pa-aḥ-ḥa-aš* (KUB 33.120.1.38, 9), *ku-(u)ru-ri-ya-aḥ-ta, ma-ni-aḥ-ta ma-ni-ya-aḥ-ḥi-iš, šu-up-pt-ya-aḥ-ḥa-aš, wa-tar-na-aḥ-ḥi-iš*  
 1 pl. *ku-ru-ri-aḥ-ḥu-u-en, ma-ni-ya-aḥ-ḥa-u-en, wa-tar-na-aḥ-ḥu-u-en*  
 2 pl. *ma-ni-ya-aḥ-ḥa-it-tin*  
 3 pl. *ku-(u)ru-ri-ya-aḥ-ḥi-ir, ma-ni-ya-aḥ-ḥi-ir, ne-wa-aḥ-ḥi-ir, wa-a-tar-na-aḥ-ḥi-ir*

## Imperative

- 2 sg. *al-la-pa-aḥ, ma-ni-ya-aḥ ma-ni-ya-aḥ-ḥi* (KUB 33.106.2.26), *ne-wa-a-aḥ* (BO 2761.1.8), *šu-up-ya-aḥ* (KUB 33.5.2.8)  
 3 pl. *ne-wa-aḥ-ḥa-an-du*  
 part. *al-la-pa-aḥ-ḥa-an, ku-u-ru-ri-(ya-)aḥ-ḥa-an, ne-u-wa-aḥ-ḥa-an, šu-up-pt-ya-aḥ-ḥa-an-da-an*  
 infin. a. *wa-tar-na-aḥ-ḥu-u-wa-an-zi*  
 verb. n. *šu-up-pt-ya-aḥ-ḥu-wa-ar, wa-tar-na-aḥ-ḥu-u-wa-aš* (KUB 32.137.2.20)

## Vowel Stems

**309.** [*pi-e-ḥu-te-iz-zi* 'he carries off', *ú-wa-te-iz-zi* 'he brings', *ú-e-te-iz-zi* 'he builds', *te-iz-zi* 'he speaks'].

## Present

- 1 sg. *pi-e-ḥu-te-mi, te-(e-)mi*  
 2 sg. *pi-e-ḥu-te-ši, te-(e-)ši*  
 3 sg. *pi-(e-)ḥu-te-iz-zi, ú-wa-te-iz-zi ú-wa-da-az-zi, ú-e-te-iz-zi, te-iz-zi*  
 1 pl. *ú-wa-te-wa-ni*  
 2 pl. *pi-e-ḥu-te-it-te-ni, ú-wa-te-it-te-ni ú-wa-da-te-e-ni ú-wa-te-it-ta-ni, te-e-te-ni*  
 3 pl. *pi-(e-)ḥu-da-an-zi, ú-wa-da-an-zi, ú-e-da-an-zi*

## Preterit

- 1 sg. *pi-(e-)ḥu-te-nu-un, ú-wa-te-(e-)nu-un, ú-e-te-nu-un*  
 2 sg. *pi-e-ḥu-te-it pi-e-ḥu-te-eš, te-it*  
 3 sg. *pi-(e-)ḥu-te-it, ú-wa-te-it ú-e-te-it, te-it ti-e-it ti-i-it*  
 1 pl. *ú-wa-te-u-en*  
 2 pl. *pi-e-ḥu-te-tin, ú-wa-te-te-en, ú-e-ta-at-te-en ú-i-ta-at-te-en*  
 3 pl. *pi-(e-)ḥu-te-ir, ú-wa-te-(e-)ir, ú-e-te-ir*

## Imperative

2 sg.	<i>pí-e-ḫu-te, ú-wa-ti ú-wa-te</i>
3 sg.	<i>ú-wa-te-id-du, te-e-id-du</i>
2 pl.	<i>pí-e-ḫu-te-(it-)te-en pí-e-ḫu-te-tin, ú-wa-te-(it-)tin, te-it-te-en te-e-tin</i>
3 pl.	<i>pí-e-ḫu-da-an-du, ú-wa-da-an-du</i>
part.	<i>pí-e-ḫu-da-an</i>

Heteroclitic forms of the *ḫi*-conjugation<sup>95</sup>

pres. 1 sg.	<i>ú-(e-)da-aḫ-ḫi</i>
pres. 3 sg.	<i>ú-da-(a-)i</i>
pres. 1 pl.	<i>pí-e-ḫu(?)du-me-e-ni (KUB 6.5.7), ú-wa-tu<sub>4</sub>-um-me-e-ni, ú-tum-me-e-ni</i>
pres. 3 pl.	<i>ú-da-an-zi</i>
pret. 1 sg.	<i>ú-(e-)da-aḫ-ḫu-un</i>
pret. 3 sg.	<i>ú-(e-)da-aš</i>
pret. 1 pl.	<i>ú-e-du-me-en, ú-(e-)tum-me-en</i>
pret. 3 pl.	<i>ú-te-ir ú-tir</i>
part.	<i>ú-(e-)da-an</i>
inf. a.	<i>ú-(e-)tum-ma-an-zi</i>
verb. n.	<i>ú-e-tum-ma-ar</i>

310. [*pa-iz-zi* 'he goes', *ú-iz-zi*<sup>96</sup> 'he comes'].

## Present

1 sg.	<i>pa-(a-)i-mi, ú-wa-(am-)mi</i>
2 sg.	<i>pa-(a-)i-ši pa-a-ši pa-it-ti, ú-wa-ši</i>
3 sg.	<i>pa-(a-)iz-zi, ú-iz-zi</i>
1 pl.	<i>pa-(a-)u-e-ni pa-(a-)i-(u-)wa-ni, ú-wa-u-e-ni</i>
2 pl.	<i>pa-it-te-ni pa-it-ta-ni, ú-wa-at-te-e-ni</i>
3 pl.	<i>pa-(a-)an-zi, ú-wa-an-zi ú-en-zi</i>

## Preterit

1 sg.	<i>pa-a-(u-)un, ú-wa-nu-un</i>
2 sg.	<i>pa-a-iš pa-it-ta (KUB 33.69.3.13), ú-it ú-wa-aš</i>
3 sg.	<i>pa-(a-)it pa-i-it, ú-it</i>
1 pl.	<i>pa-a-u-en pa-a-(i-)ú-en pa-i-ú-u-en, ú-wa-u-en</i>
2 pl.	<i>ú-wa-at-tin</i>
3 pl.	<i>pa-a-ir, ú-e-ir</i>

## Imperative

3 sg.	<i>pa-id-du, ú-id-du ú-wa-du</i>
2 pl.	<i>ú-wa-at-te-en ú-wa-at-tin ú-it-te-en</i>

<sup>95</sup> By calling these forms 'heteroclitic' I do not intend to express an opinion as to which conjugation is the more original in these verbs. Very likely IH had both presents and perfects side by side.

<sup>96</sup> When I wrote HG<sup>1</sup> I had not recognized that *ú-iz-zi* was a compound verb, like *pa-iz-zi*. Hence I classed it with *wa-aš-še-iz-zi* 'he clothes'.

3 pl.	<i>pa-a-an-du, ú-wa-an-du</i>
part.	<i>pa-(a)an-za, ú-wa-an-za</i>
inf. a.	<i>pa-a-u-wa-an-zi, ú-wa-u-(wa)an-zi</i>
verb. n.	<i>pa-a-u-(wa)ar, ú-wa-wa-ar</i>

**311.** [*ar-nu-uz-zi* 'he brings', *nu-un-tar-nu-zi* 'he exerts himself', \**pa-aḥ-ḥa-aš-nu-uz-zi* 'he protects', *pár-ku-nu-uz-zi* 'he makes pure', *šal-la-nu-uz-zi* 'he makes great', *wa-aḥ-nu-(uz)zi* 'he causes to turn'].

## Present

1 sg.	<i>ar-nu-mi, pár-ku-nu-(um-)mi</i>
2 sg.	<i>ar-nu-ut-ti ar-nu-ši, nu-un-tar-nu-ši, pár-ku-nu-ši, šal-la-nu-ši, wa-aḥ-nu-ši</i>
3 sg.	<i>ar-nu-(uz-)zi, pár-ku-nu-(uz-)zi, šal-la-nu-uz-zi, wa-aḥ-nu-(uz-)zi</i>
1 pl.	<i>ar-nu-um-me-ni, pár-ku-nu-um-me-ni, wa-aḥ-nu-um-me-e-ni</i>
2 pl.	<i>ar-nu-ut-te-ni, nu-un-tar-nu-ut-te-(e-)ni, pa-aḥ-ḥa-aš-nu-ut-te-ni pa-aḥ-ša-nu-ut-te-ni, wa-aḥ-nu-ut-te-ni</i>
3 pl.	<i>(a)ar-nu-(wa)an-zi, pa-aḥ-ša-nu-wa-an-zi, pár-ku-nu-wa-an-zi, wa-aḥ-nu-(wa)an-zi</i>

## Preterit

1 sg.	<i>ar-nu-nu-un, pár-ku-nu-nu-un, šal-la-nu-nu-un, wa-aḥ-nu-nu-un</i>
2 sg.	<i>pa-aḥ-ḥa-aš-ša-nu-ut</i>
3 sg.	<i>ar-nu-ut, nu-un-tar-nu-ut, šal-la-nu-ut, wa-aḥ-nu-ut</i>
1 pl.	<i>wa-aḥ-nu-um-me-en</i>
2 pl.	<i>ar-nu-ut-tin, ša-al-la-nu-ut-te-en</i>
3 pl.	<i>ar-nu-(e-)ir, pa-aḥ-(aš-)ša-nu-ir, pár-ku-nu-(e-)ir, šal-la-nu-e-ir, wa-aḥ-nu-(e-)ir</i>

## Imperative

2 sg.	<i>(a)ar-nu-ut, pa-aḥ-ḥa-aš-ša-nu-ut, pár-ku-nu-ut</i>
3 sg.	<i>ar-nu-ud-du, pár-ku-nu-ud-du</i>
2 pl.	<i>ar-nu-ut-tin, pa-aḥ-ḥa-aš-nu-ut-te-en</i>
3 pl.	<i>ar-nu-an-du, pár-ku-nu-an-du</i>
part.	<i>pa-aḥ-ša-nu-wa-an-za pa-aḥ-ḥa-aš-nu-wa-an-za, pár-ku-nu-wa-an-za, šal-la-nu-wa-an-za, wa-aḥ-nu-(wa)an</i>
inf. a.	<i>pa-aḥ-ḥa-aš-ša-nu-ma-an-zi, šal-la-nu-ma-an-zi, wa-aḥ-nu-(um-)ma-an-zi</i>
verb. n.	<i>a-ar-nu-mar, nu-un-tar-nu-um-mar, pa-aḥ-ša-nu-mar, pár-ku-nu-mar, wa-aḥ-nu-mar</i>

## Thematic Verbs

**312.** [*ak-ku-uš-ki-iz-zi* 'he is drinking', *an-ni-eš-ki-iz-zi* 'he is performing', *az-zi-ik-ki-iz-zi* 'he is eating', *pt-eš-ki-iz-zi* 'he is giving', *tar-aš-ki-iz-zi* 'he is announcing', *da-aš-ki-iz-zi* 'he is taking', *uš-ki-iz-zi* 'he is seeing'].



## Present

- 1 sg. *an-ni-eš-ki-mi a-ni-iš-ki-mi, pī-eš-ki-mi, tar-ši-ki-mi, da-aš-ki-mi*  
 2 sg. *ak-ku-uš-ki-e-ši* (KUB. 31.143.2.16), *pī-iš-ki-ši, tar-ši-(ik-)ki-ši, da-aš-ki-ši, uš-ki-ši uš-gi-ši*  
 3 sg. *ak-ku-uš-ki-iz-zi, an-ni-iš-ki-iz-zi an-ni-eš-ki-iz-zi, az-zi-(ik-)ki-(iz-)zi, pī-eš-ki-iz-zi pī-iš-ki-iz-zi, tar-aš-ki-iz-zi tar-ši-ki-iz-zi, da-aš-ki-iz-zi, uš-ki-iz-zi*  
 1 pl. *pī-eš-ga-u-e-ni, da-aš-ga-u-e-ni da-aš-ki-u-wa-ni*  
 2 pl. *an-ni-eš-ki<sub>9</sub>-te-e-ni an-ni-iš-ki<sub>9</sub>-te-e-ni, pī-eš-ki<sub>9</sub>-te-ni, da-a-aš-qa-te-e-ni da-aš-ki<sub>9</sub>-te-ni da-aš-ki-it-te-ni, uš-ka-te-ni uš-ki<sub>9</sub>-te-ni*  
 3 pl. *ak-ku-uš-kán-zi, an-ni-eš-kán-zi an-ni-iš-kán-zi, az-zi-(ik-)kán-zi az-zi-ig-ga-an-zi, pī-eš-kán-zi, tar-aš-kán-zi tar-ši-(ik-)kán-zi, da-aš-kán-zi, uš-kán-zi*

## Preterit

- 1 sg. *ak-ku-uš-ki-nu-un, a-an-ni-iš-ki-nu-un, az-zi-ik-ki-nu-un, da-aš-ga-nu-un, uš-ki-nu-un*  
 2 sg. *pī-eš-ki-it, da-aš-ki-eš, tar-aš-ki-it*  
 3 sg. *ak-ku-uš-ki-it, pī-eš-ki-it, da-aš-ki-it, uš-ki-it*  
 1 pl. *tar-ši-ga-u-e-en tar-aš-ki-u-en, uš-ga-u-en*  
 2 pl. *pī-eš-ki<sub>9</sub>-tin*  
 3 pl. *ak-ku-uš-kir, an-ni-eš-ki-ir a-ni-eš-ki-ir, az-zi-ki-ir, pī-eš-kir pī-iš-kir pī-eš-ki-ir, da-aš-ki-(e)ir, uš-ki-ir*

## Imperative

- 1 sg. *pī-iš-ki-el-lu, uš-gal-lu*  
 2 sg. *ak-ku-uš-ki, az-zi-(ik-)ki, pī-eš-ki, (u-)uš-ki*  
 3 sg. *ak-ku-uš-ki-id-du, az-zi-(ik-)ki-(id-)du, pī-iš-ki-id-du, ú-uš-kid<sub>9</sub>-du*  
 2 pl. *ak-ku-uš-ki<sub>9</sub>-te-en, an-ni-iš-ki-it-tin, az-zi-ki<sub>9</sub>-te-en, pī-iš-ki<sub>9</sub>-tin, da-a-aš-qa-te-en ta-aš-ki<sub>9</sub>-tin*  
 3 pl. *ak-ku-uš-kán-du, az-zi-(ik-)kán-du, uš-kán-du*  
 part. *uš-kán-ta-an*  
 sup. *a-zi-ki-wa-an, pī-eš-ki-u-(wa-)an pī-iš-ki-u-an, da-aš-ki-u-wa-an*

313. [*hu-ul-li-iz-zi*<sup>97</sup> 'he smites', *iš-ḫi-i-e-iz-zi*<sup>98</sup> 'he binds', *i-ya-(az-)zi*<sup>99</sup> 'he makes', *da-li-ya-zi*<sup>100</sup> 'he leaves', *ti-ya-(az-)zi* 'he takes his stand', *ú-e-mi-ya-(az-)zi* 'he finds', *za-aḫ-ḫi-e-iz-zi* 'he fights'].

## Present

- 1 sg. *i-ya-(am-)mi, da-(a-)li-ya-mi, ti-ya-mi, ú-e-mi-ya-mi, za-aḫ-ḫi-ya-mi*  
 2 sg. *i-ya-ši i-e-ši, da-a-li-ya-ši, ti-ya-ši, ú-e-mi-ya-ši, za-aḫ-ḫi-ya-ši*

<sup>97</sup> This verb stands in suppletive relation to *hu-ul-la-a-i* 'he smites'.

<sup>98</sup> This verb stands in suppletive relation to *iš-ḫa-a-i* 'he binds' [319].

<sup>99</sup> For the etymology of this verb, see Sturtevant, JAOS 63.1-3 (1943). Its inclusion here does not indicate that it contains the suffix that appears elsewhere in the list.

<sup>100</sup> This verb stands in suppletive relation to *da-la-a-i* 'he leaves'.

3 sg.	<i>hu-(u)ul-li-ya-az-zi hu-ul-li-iz-zi, iš-ḥi-i-e-iz-zi, i-ya-(az-)zi i-(e-)iz-zi i-e-zi, da-li-ya-zi, ti-ya-(az-)zi ti-i-e-(iz-)zi ti-ya-(e-)iz-zi, ú-e-mi-ya-(az-)zi ú-e-mi-(e-)iz-zi ú-e-mi-az-zi, za-aḥ-ḥi-e-iz-zi</i>
1 pl.	<i>i-ya-u-e-ni, da-a-li-ya-u-e-ni, ti-ya-u-e-ni, ú-e-mi-ya-u-e-ni, za-aḥ-ḥi-ya-u-e-ni</i>
2 pl.	<i>iš-ḥi-ya-at-te-e-ni, i-ya-at-te-ni, ti-ya-at-te-ni, za-aḥ-ḥi-ya-at-te-ni</i>
3 pl.	<i>iš-ḥi-(ya-)an-zi, i-ya-an-zi i-(e-)en-zi, da-(a-)li-ya-an-zi, ti-(i-ya-)an-zi ti-en-zi, ú-e-mi-ya-an-zi, za-aḥ-ḥi-ya-an-zi</i>

## Preterit

1 sg.	<i>hu-ul-li-ya-nu-un, iš-ḥi-ya-nu-un, i-ya-nu-un, da-(a-)li-ya-nu-un ta-a-li-ya-nu-un, ti-(i-)ya-nu-un, ú-e-mi-ya-nu-un, za-aḥ-ḥi-ya-nu-un</i>
2 sg.	<i>i-ya-aš i-ya-at, da-li-ya-at, ti-ya-at</i>
3 sg.	<i>hu-ul-li-ya-at hu-ul-li-i-e-it hu-ul-li-it, iš-ḥi-ya-at, i-ya-at, da-a-li-ya-at ta-li-ya-at, ti-(i-)ya-at ti-i-e-it, ú-e-mi-(i-)ya-at ú-e-mi-it, za-aḥ-ḥi-ya-at</i>
1 pl.	<i>hu-u-ul-li-ya-u-en, i-ya-u-e-en, da-a-li-ya-u-en, ti-ya-u-en, ú-e-mi-ya-u-en</i>
2 pl.	<i>i-ya-at-tin, ú-e-mi-ya-tin</i>
3 pl.	<i>hu-ul-li-(e-)ir, iš-ḥi-i-e-ir, i-e-ir, ti-(i-)e-ir, ú-e-mi-(i-e-)ir, za-aḥ-ḥi-ir</i>

## Imperative

1 sg.	<i>i-ya-al-lu</i>
2 sg.	<i>i-ya, ti-(i-)ya</i>
3 sg.	<i>i-ya-ad-du i-ya-at-tu i-e-id-du, ti-ya-ad-du ti-i-e-id-du</i>
2 pl.	<i>ti-ya-at-tin ti-ya-at-ti-en, za-aḥ-ḥi-ya-at-tin</i>
3 pl.	<i>iš-ḥi-(ya-)an-du, i-ya-an-du i-en-du, ti-(ya-)an-du, ú-e-mi-ya-an-du</i>
part.	<i>iš-ḥi-(ya-)an-za, i-ya-an-za, da-a-li-ya-an, ti-ya-an</i>
infinitive	a. <i>i-ya-u-wa-an-zi, ti-ya-u-an-zi, ú-e-mi-ya-u-wa-an-zi, za-aḥ-ḥi-ya-u-wa-an-zi</i>
	b. <i>i-ya-u-wa-an-na i-ya-u-wa-ni, ti-ya-an-na</i>
verb. n.	<i>iš-ḥi-ya-u-wa-ar, i-ya-u-wa-ar, da-li-ya-u-ar, ti-ya-u-(wa-)ar</i>
gen.	<i>i-ya-u-wa-aš, ti-ya-u-wa-aš, za-aḥ-ḥi-ya-u-wa-aš</i>

## Verbs in -a(e)-

314. The differing stem final in these verbs led to many heteroclitic forms, such as *ḥa-an-da-a-i* beside *ḥa-an-da-a-iz-zi* and *šu-u-i-e-iz-zi*, *šu-wa-e-i-e-iz-zi*, and *šu-ú-i-iz-zi* beside *šu-wa-a-iz-zi*. We shall not list such variants.

315. [*ḥa-an-da-a-iz-zi* 'he establishes', *ḥa-at-ra-iz-zi* 'he writes', *ir-ḥa-a-iz-zi* 'he finishes', *šu-wa-a-iz-zi* 'he presses out', *\*tar-kum-ma-a-iz-zi* 'he interprets', *tar-ma-iz-zi* 'he fastens'].

## Present

1 sg.	<i>ḥa-(a-)an-da-(a-)mi ḥa-an-ta-a-mi, ḥa-at-ra-a-mi, ir-ḥa-a-mi, tar-ma-a-mi tar-ma-e-mi</i>
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2 sg.	<i>ḥan-an-da-a-ši, ḥa-at-ra-a-ši, tar-kum-ma-a-ši</i>
3 sg.	<i>ḥa-an-da-(a)iz-zi, ḥa-at-ra-a-iz-zi, ir-ḥa-(a)iz-zi, šu-wa-(a)iz-zi šu-wa-(a)i-iz-zi, tar-ma-iz-zi</i>
1 pl.	<i>ḥa-at-ra-a-u-ni, šu-wa-u-e-ni, tar-ma-a-u-e-ni</i>
2 pl.	<i>tar-kum-ma-at-te-ni</i>
3 pl.	<i>ḥa-an-da-(a)an-zi, ḥa-at-ra-a-an-zi, ir-ḥa-(a)an-zi, šu-u-wa-an-zi, tar-kum-ma-an-zi, tar-ma-a-an-zi</i>

## Preterit

1 sg.	<i>ḥa-an-da-nu-un ḥa-an-ta-nu-un, ḥa-at-ra-(a)nu-un, tar-ma-a-nu-un, šu-wa-nu-un</i>
2 sg.	<i>ḥa-at-ra-a-eš</i>
3 sg.	<i>ḥa-an-da-(a)it, ḥa-at-ra-(a)it, šu-wa-i-it</i>
1 pl.	<i>ḥa-an-da-a-u-en</i>
2 pl.	<i>š-u-u-wa-at-tin</i>
3 pl.	<i>ḥa-an-da-ir ḥa-an-ta-ir, ḥa-at-ra-a-ir, tar-ma-ir</i>

## Imperative

2 sg.	<i>ḥa-an-da-a-i, ḥa-at-ra-a-i, tar-kum-ma-i</i>
3 sg.	<i>ḥa-an-ta-id-du, šu-wa-a-id-du</i>
2 pl.	<i>š-u-u-wa-at-tin</i>
3 pl.	<i>ḥa-an-ta-an-du, šu-u-wa-an-du</i>
part.	<i>ḥa-an-da-(a)an-za ḥa-an-ta-a-an-za, ir-ḥa-a-an, tar-ma-a-an</i>
inf. a.	<i>ḥa-an-da-a-u-wa-an-zi, ir-ḥa-a-u-wa-an-zi, tar-ma-u-wa-an-zi</i>
verb. n.	<i>ḥa-an-da-a-u-wa-ar, ir-ḥa-u-wa-ar</i>

The *ḥi*-Conjugation

## Class I, Consonant Stems

## Verbs with radical ablaut a/e

**316.** [*a-ki* 'he dies', *a-ri* 'he arrives', *a-ša-a-ši* 'he sets, founds', *ḥa-a-ši* 'he opens', *ka-ra-a-pi* 'he devours', *ša-ak-ki* 'he knows'].

## Present

1 sg.	<i>a-ar-ḥi, a-ša-aš-ḥi a-ša-aš-ḥé, ša-(a)ag-ga-aḥ-ḥi ša-ak-ḥi</i>
2 sg.	<i>ak-ti, a-ar-ti, a-ša-aš-ti, ša-a-ak-ti še-ik-ti</i>
3 sg.	<i>a-ki, a-ri, a-ša-(a)ši, ḥa-a-ši, ka-(a)ra-(a)pí ga-ra-pí, ša-ak-ki</i>
1 pl.	<i>a-ku-e-ni ak-ku-(u)e-ni, e-ir-u-e-ni e-ru-(u)e-ni, še-ik-ku-e-ni</i>
2 pl.	<i>a-ak-te-ni, (a)ar-te-ni e-ir-te-ni, še-ik-te-ni</i>
3 pl.	<i>ak-kán-zi, a-ra-an-zi, a-še-ša-an-zi a-ši-ša-an-zi, ḥa-aš-ša-an-zi ḥé-e-ša-an-zi, ka-ri-pa-an-zi ka-ra-pa-an-zi, še-ik-kán-zi</i>

## Preterit

1 sg.	<i>(a)ar-aḥ-ḥu-un (a)ar-ḥu-un, a-ša-aš-ḥu-un, ša-ag-ga-aḥ-ḥu-un</i>
2 sg.	<i>a-ša-aš-ta a-še-eš-ta, ša-ak-ta</i>

3 sg.	<i>ak-ta (a-)ak-ki-iš, a-ar-aš a-ar-ta, a-ša-aš-ta a-še-eš-ta e-še-eš-ta, ħa-(a)-aš-ta, ka-ri-pa-aš ka-ri-ip-ta, ša-ak-ta ša-ak-ki-iš</i>
1 pl.	<i>e-ru-u-en e-ir-u-en</i>
2 pl.	<i>a-ak-te-en, a-ar-tin ir-te-in</i>
3 pl.	<i>a-ki-ir a-kir e-ki-ir e-kir, e-ri-(e)ir i-e-ri-ir, a-še-(e)še-ir a-še-šir, ħi-e-še-ir, ka-ri-e-pí-ir, še-ik-ki-ir</i>

## Imperative

1 sg.	<i>ak-kal-lu ag-ga-al-lu, še-ig-gal-lu</i>
2 sg.	<i>a-ak, ka-ri-ip, ša-a-ak ša-ki</i>
3 sg.	<i>a-ku ak-du, a-ru, ħa-a-šu ħé-e-eš-du, ša-ak-ku ša-a-ak-du</i>
2 pl.	<i>a-ar-tin, a-še-eš-tin, ka-ri-ip-tin, še-ik-tin</i>
3 pl.	<i>ak-kán-du, a-ra-an-du, ka-ri-(ip-)pa-an-du, še-ik-kán-du</i>
part.	<i>ak-kán-za, a-ra-an-za, a-ši-ša-an-te-eš, ħa-aš-ša-an-za, ka-ri-pa-an-da-an</i>
infin. a.	<i>a-še-šu-wa-an-zi, ka-ri-pu-wa-an-zi</i>
sup.	<i>ka-ri-pu-u-wa-an</i>
verb. n.	<i>a-še-šu-u-wa-ar, ħé-šu-u-ar</i>
gen.	<i>a-ra-u-wa-aš, ħé-e-šu-wa-aš</i>

**317.** [*a-ar-ri* 'he washes', *ħa-a-ši* 'he begets', *iš-da-a-pt* 'he encloses', *la-a-ħu-i* 'he pours', *\*pa-aħ-ši* 'he protects', *ši-pa-an-ti* 'he pours a libation', *wa-a-ki* 'he bites']<sup>101</sup>

## Present

1 sg.	<i>ar-ra-aħ-ħi, iš-ta-ap-aħ-ħi, la-ħu-uħ-ħi, pa-aħ-ħa-aš-ħi, ši-pa-an-daħ-ħi ši-pa-an-da-aħ-ħi ši-pa-an-ta-aħ-ħi</i>
2 sg.	<i>la-aħ-ħu-ut-ti, pa-aħ-ħa-aš-ti</i>
3 sg.	<i>(a-)ar-ri, ħa-a-ši, iš-da-(a)-pt iš-tap-pt, la-(a)ħu-(u)-i, ši-(ip-)pa-an-ti, wa-a-ki</i>
1 pl.	<i>pa-aħ-šu-(u)-e-ni, ši-pa-an-du-wa-ni</i>
2 pl.	<i>pa-aħ-ħa-aš-te-ni</i>
3 pl.	<i>(a-)ra-ra-an-zi, ħa-aš-ša-an-zi, iš-tap-pa-an-zi, la-(a)ħu-(u)wa-an-zi la-(a)ħu-u-an-zi, pa-aħ-ša-an-zi, ši-(ip-)pa-an-da-an-zi ši-(ip-)pa-an-ta-an-zi</i>

## Preterit

1 sg.	<i>a-ar-ra-aħ-ħu-un, ši-(ip-)pa-an-da-aħ-ħu-un ši-pa-an-ta-aħ-ħu-un</i>
2 sg.	<i>a-ar-aš-ta, pa-aħ-aš-ta</i>
3 sg.	<i>ħa-aš-ta, iš-tap-pa-aš iš-tap-ta, la-a-aħ-ħu-uš, ši-ip-pa-an-da-aš, wa-ak-ki-iš</i>
1 pl.	<i>wa-a-ku-e-en</i>
2 pl.	<i>pa-aħ-ħa-aš-te-en pa-aħ-ħa-aš-tin</i>
3 pl.	<i>ar-ri-ir, ħa-aš-ši-ir ħa-a-še-ir, pa-aħ-šir, ši-pa-an-te-ir</i>

<sup>101</sup> A number of these verbs show also forms of the second class.

## Imperative

2 sg.	<i>pa-aḥ-ši</i>
3 sg.	<i>ḥa-a-šu, iṣ-tap-du iṣ-ta-a-pu</i>
2 pl.	<i>la-aḥ-ḥu-tin, pa-(aḥ-)ḥa-aš-tin</i>
3 pl.	<i>iṣ-tap-pa-an-du, pa-aḥ-ša-an-du</i>
part.	<i>(a-)ar-ra-an-za, ḥa-aš-ša-an-te-eš, iṣ-tap-pa-an, la-a-ḥu-(u-)wa-an, ši-pa-an-ta-an-za, wa-ag-ga-an-te-eš</i>
infin.	a. <i>ar-ra-u-wa-an-zi, ši-pa-an-du-(u-wa-)an-zi ši-pa-an-tu-u-wa-an-zi</i>
	b. <i>ši-pa-an-tu-u-an-ta</i> [103]
verb. n.	<i>wa-kán-na wa-ga-an-na wa-ga-an-na</i>
gen.	<i>la-a-ḥu-u-wa-ar, ši-(ip-)pa-an-du-ar, da-a-u-wa-ar</i>
	<i>a-ar-ru-wa-aš, ḥa-a-ša-u-wa-aš, da-a-u-wa-aš</i>

## Heteroclititic forms

pres. 1 sg.	<i>pa-aḥ-ḥa-aš-mi</i>
pret. 1 sg.	<i>ḥa-šu-un, la-a-ḥu-un</i>

Class II, *a*-stems

318. [*e-eš-ša-(a-)i* 'he performs', *ḥal-zi-iṣ-ša-i* 'he recites', \**ku-en-na-i* 'he strikes', *me-ma-i* 'he says', *šar-ra-i* 'he divides', *da-a-i* 'he takes', *ta-la-a-i* 'he leaves' [313], *tar-na-(a-)i* 'he puts in'].

## Present

1 sg.	<i>e-eš-ša-aḥ-ḥi iṣ-ša-aḥ-ḥi, ḥal-zi-iṣ-ša-aḥ-ḥi, me-ma-aḥ-ḥi, da-aḥ-ḥi, da-a-la-aḥ-ḥi ta-la-aḥ-ḥi, tar-na-aḥ-ḥi</i>
2 sg.	<i>e-eš-ša-at-ti iṣ-ša-at-ti, ḥal-zi-iṣ-ša-at-ti, me-(e-)ma-(at-)ti, šar-ra-at-ti, da-at-ti ta-at-ti, da-la-at-ti, tar-na-(at-)ti tar-na-ši</i>
3 sg.	<i>(e-)eš-ša-(a-)i (i-)iṣ-ša-i, ḥal-zi-(iṣ-)ša-i, me-ma-(a-)i me-im-ma-i, šar-ra-i, da-a-i, ta-la-ai, tar-na-(a-)i</i>
1 pl.	<i>e-eš-šu-u-e-ni,<sup>102</sup> ku-en-nu-um-me-e-ni ku-en-nu-um-mi-e-ni, me-mi-u-e-ni me-ma-u-e-ni, šar-ra-u-e-ni, tum-me-ni tu-um-me-ni du-um-me-e-ni da-a-u-e-ni<sup>103</sup> (KUB 16.16.2.20) da-a-u-wa-ni, tar-nu-um-me-(e-)ni tar-nu-um-ma-ni</i>
2 pl.	<i>iṣ-ša-at-te-ni, ku-en-na-at-te-ni, me-ma-(at-)te-ni me-mi-iṣ-te-ni, šar-ra-at-te-ni, da-at-te-(e-)ni, da-li-eš-te-ni, tar-na-at-te-ni</i>
3 pl.	<i>e-eš-ša-an-zi iṣ-ša-an-zi, ḥal-zi-iṣ-ša-an-zi, ku-en-na-an-zi, me-(im-)ma-an-zi, šar-ra-an-zi, da-(a-)an-zi, da-la-an-zi, tar-na-an-zi</i>

## Preterit

1 sg.	<i>e-eš-ša-aḥ-ḥu-un, me-ma-aḥ-ḥu-un me-maḥ-ḥu-un, šar-ra-aḥ-ḥu-un, da-(a-)aḥ-ḥu-(u-)un, da-(a-)la-aḥ-ḥu-un ta-(a-)la-aḥ-ḥu-un, tar-na-aḥ-ḥu-un</i>
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<sup>102</sup> These forms are from the consonant stem *e-eš-* of the *mi*-conjugation [302]. See Sturtevant, JAOS 63.1-3 (1943).

<sup>103</sup> As we have seen above [69], Hitt. *tu-um-me-ni* 'we take' comes from pre-IH *dāh-wēni*. It follows that the variant *da-a-u-e-ni* is a full grade form, IH *dēh-wēn-* or *dōh-wēn-*. A similar explanation of other forms with *w*, where *m* might be expected, can easily be found.

2 sg.	<i>ħal-zi-eš-še-eš-ta, me-mi-iš-ta, šar-ra-at-ta, da-(a)-at-ta da-a-aš, tar-na-aš</i>
3 sg.	<i>e-eš-še-eš-ta e-eš-ši-iš-ta, ku-in-ni-eš-ta, me-mi-iš-ta me-(im-)ma-aš, šar-ra-aš, da-a-aš, da-a-li-eš-ta da-a-li-iš, tar-na-aš tar-ni-eš-ta</i>
1 pl.	<i>e-eš-šu-u-en,<sup>102</sup> ku-in-nu-um-mi-en, šar-ru-um-me-en, da-a-u-en,<sup>103</sup> tar-nu-um-me-en tar-nu-mi-en tar-nu-en</i>
2 pl.	<i>e-eš-ša-at-te-in, da-(a)-at-te-en, tar-na-at-tin tar-na-at-te-en</i>
3 pl.	<i>e-(eš-)še-ir e-eš-šir i-iš-še-ir iš-šir, ħal-zi-eš-šir, ku-en-nir ku-(e)-en-ni-ir, me-mi-(e)-ir, šar-ri-(i)-e-ir, da-a-ir, da-li-ir, tar-nir tar-ni-ir</i>

## Imperative

1 sg.	<i>me-ma-al-lu</i>
2 sg.	<i>e-eš-ša e-eš-ši, ku-en-ni ku-e-ni, me-mi, šar-ri, da-a, da-a-la da-a-li, tar-na tar-ni</i>
3 sg.	<i>e-eš-ša-ú, me-(e-)ma-(a)ú me-ma-at-tu<sub>4</sub>, šar-ra-at-tu, da-a-ú da-a-u, ta-a-li-eš-du, tar-na-(a)ú</i>
2 pl.	<i>e-eš-ša-at-te-in iš-ša-at-tin, me-mi-eš-tin me-mi-iš-tin, da-(a)-at-tin da-at-te-en ta-a-li-eš-te-en, tar-na-at-tin tar-ni-iš-tin</i>
3 pl.	<i>e-eš-ša-an-du, ħal-zi-eš-ša-an-du, me-ma-an-du, da-an-du, tar-na-an-du</i>
part.	<i>e-eš-ša-an-za, ku-en-ni-ya-an-za, me-ma-an-za, šar-ra-an-za, da-an-za, da-li-ya-an</i>
sup.	<i>e-eš-šu-(u-)wa-an<sup>102</sup></i>
infin.	a. <i>ku-en-nu-um-ma-an-zi, šar-ru-um-ma-an-zi, da-a-u-wa-an-zi, tar-nu-ma-an-zi</i>
	b. <i>da-an-na</i>
verb. n.	<i>e-eš-šu-wa-ar,<sup>102</sup> šar-ru-mar, da-lu-mar, tar-nu-mar</i>
gen.	<i>tar-nu-(um-)ma-aš</i>

## Class III, Diphthongal Stems, with some suppletive material

**319.** [*iš-ħa-a-i* 'he binds' [313], *na-a-i* 'he leads', *pa-a-i* 'he gives', *da-a-i* 'he places'].

## Present

1 sg.	<i>ne-iħ-ħi, pi-(e)-iħ-ħi, te-(iħ)-ħi ti-iħ-ħi</i>
2 sg.	<i>na-(a)-it-ti ni-it-ti, pa-it-ti pa-iš-ti, da-it-ti ta-it-ti</i>
3 sg.	<i>iš-ħa-a-i, na-a-i, pa-a-i, da-a-i</i>
1 pl.	<i>ne-ya-u-e-ni, pi-(i)-ya-u-e-ni, ti-(i)-ya-u-e-ni</i>
2 pl.	<i>na-iš-te-ni, pa-iš-te-ni pi-ya-te-ni, da-a-it-te-ni ta-a-it-te-ni</i>
3 pl.	<i>ne-(e-ya)-an-zi</i>

## Preterit

1 sg.	<i>iš-ħi-iħ-ħu-un, ne-iħ-ħu-un, pi-(e)-iħ-ħu-un, te-iħ-ħu-un</i>
2 sg.	<i>pa-it-ta pa-iš-ta pa-(a)-iš, da-(a)-iš da-iš-ta</i>
3 sg.	<i>iš-ħa-a-iš, na-(a)-iš na-i-iš na-iš-ta na-eš-ta, pa-(a)-iš, da-(a)-iš</i>

1 pl.	<i>pí-ya-u-e-en, da-i-u-en da-i-ú-en ti-ya-u-en</i>
3 pl.	<i>na-a-ir na-i-ir ne-i-e-ir, pí-i-e-ir, da-a-ir da-(a)i-(e)-ir</i>

## Imperative

2 sg.	<i>na-(a)i, pa-(a)i, da-(a)i</i>
3 sg.	<i>na-a-ú, pa-a-ú, da-a-ú</i>
2 pl.	<i>na-iš-tin na-eš-tin ne-ya-at-tin, da-a-iš-tin</i>
3 pl.	<i>pí-(ya-)an-du, ti-an-du</i>
part.	<i>ne-ya-an-za, pí-ya-an-za, ti-ya-a-an</i>
infin. a.	<i>pí-ya-u-(wa-)an-zi</i>
b.	<i>pí-ya-an-na</i>
verb. n.	<i>ne-ya-u-wa-ar, ti-ya-u-wa-ar, ti-ya-mar</i>

**320.** [*a-uš-zi* 'he sees', *ma-uš-zi* 'he falls'].

## Present

1 sg.	<i>u-uḫ-ḫi</i>
2 sg.	<i>a-ut-ti</i>
3 sg.	<i>a-uš-zi, ma-uš-zi</i>
1 pl.	<i>(a)-ú-(um-)me-ni a-ú-um-mi-e-ni</i>
2 pl.	<i>a-ut-te-ni (a)uš-te-ni</i>
3 pl.	<i>ú-wa-an-zi</i>

## Preterit

1 sg.	<i>u-uḫ-ḫu-un</i>
2 sg.	<i>a-uš-ta, ma-uš-ta</i>
3 sg.	<i>a-(ú)uš-ta</i>
1 pl.	<i>a-ú-me-en</i>
3 pl.	<i>a-ú-(e)-ir, ma-uš-še-ir</i>

## Imperative

1 sg.	<i>ú-wa-al-lu</i>
2 sg.	<i>a-ú</i>
3 sg.	<i>a-uš-du</i>
2 pl.	<i>a-uš-tin a-uš-te-en</i>
3 pl.	<i>ú-wa-an-du</i>
part.	<i>ma-uš-ša-an-za</i>
infin. a.	<i>ma-uš-šu-u-wa-an-zi</i>
b.	<i>ú-wa-an-na</i>
verb. n.	<i>ú-wa-(a)-tar</i>

## The Medio-Passive

**321.** [(*a*)-*ar-ta* 'he takes his stand', *e-ša* 'he sits', *i-ya-at-ta* 'he marches', *ki-it-ta* 'he lies down', *ne-i-ya* 'he turns', *pa-aḫ-ša-ri* 'he protects', *u-wa-it-ta* 'he appears', *za-aḫ-ḫi-ya-at-ta* 'he fights'].

**321a. Forms with Simple Endings**

## Present

- 1 sg. *pa-aḥ-ḥa-aš-ḥa* (KUB 31.115.18), *za-aḥ-ḥi-ya-aḥ-ḥa* (? KUB 23.72.-2.40)  
 2 sg. *pa-aḥ-ḥa-aš-ta*  
 3 sg. *ar-ta*, *e-ša*, *i-ya-at-ta*, *ki-it-ta*, *ne-i-ya ne-e-ya*, *u-wa-it-ta*, *za-aḥ-ḥi-ya-at-ta*  
 1 pl. *ar-wa-aš-ta*, *e-šu-wa-aš-ta*, *pa-aḥ-šu-wa-aš-ta*  
 2 pl. *i-ya-ad-du-ma*, *pa-aḥ-ḥa-aš-du-ma*  
 3 pl. *a-ra-(a)an-ta* *a-ra-an-da*, *e-ša-an-da* *e-ša-an-ta* *a-ša-an-da* *a-ša-an-ta*, *i-ya-an-ta* *i-ya-an-da*, *ki-(ya-)an-ta* *ki-an-da*

**321b. Forms with Composite Endings**

## Present

- 1 sg. *ar-ḥa-ḥa-ri*, *e-eš-ḥa-ḥa-ri*, *i-ya-aḥ-ḥa-ri*, *ne-ya-aḥ-ḥa-ri*, *za-aḥ-ḥi-ya-aḥ-ḥa-ri*  
 2 sg. *ar-ta-ri* *ar-ta-ti* (KBo. 5.3.2.11), *e-eš-ta-ri*, *ne-ya-at-ta-ti*  
 3 sg. *ar-ta-ri*, *e-ša-(a)ri*, *i-ya-(at)ta-(a)ri*, *i-ya-ad-da-(a)ri*, *ki-it-ta-ri*, *ne-ya-(a)ri* *ne-e-a-ri* *ni-ya-ri*, *u-wa-it-ta-ri*, *pa-aḥ-ša-ri*  
 1 pl. *e-šu-wa-aš-ta-ti*<sup>104</sup>  
 3 pl. *a-ra-an-ta-ri* *a-ra-an-da-ri*, *e-ša-an-ta-ri* *e-ša-an-da-ri*, *i-ya-an-ta-ri* *i-ya-an-da-ri*, *ki-ya-an-ta-ri*, *ni-ya-an-ta-ri*

## Preterit

- 1 sg. *ar-ḥa-ḥa-at* *ar-ḥa-ti*, *e-eš-ḥa-(ḥa)-at* *e-eš-ḥa-ti*, *i-ya-aḥ-ḥa-(ḥa)-at*, *ne-ya-aḥ-ḥa-at*, *u-wa-aḥ-ḥa-at*, *pa-aḥ-ḥa-aš-ḥa-(ḥa)-at*, *za-aḥ-ḥi-ya-aḥ-ḥa-at*  
 2 sg. *ar-ta-at* *ar-ta-ti*, *i-ya-at-ta-at* *i-ya-at-ta-ti*  
 3 sg. *ar-ta-at*, *e-ša-at* *e-ša-ti* *e-eš-ta-at*, *i-ya-at-ta-at* *i-ya-at-ta-ti*, *ki-it-ta-at*, *ne-ya-(at)ta-at* *ne-ya-ad-da-at*, *pa-aḥ-ḥa-aš-ta-at*, *u-wa-it-ta-at*  
 1 pl. *ar-wa-aš-ta-at*, *e-šu-wa-aš-ta-ti* (KUB 33.106.2.13, 14)  
 2 pl. *e-eš-tum-ma-at*, *ki-id-du-ma-ti*, *za-aḥ-ḥi-ya-ad-du-ma-at*  
 3 pl. *a-ra-an-da-ti* *a-ra-an-ta-at*, *e-ša-an-ta-at* *e-ša-an-da-at*, *i-ya-an-ta-at*, *ki-ya-an-ta-ti*, *ne-(ya-)an-ta-ti* *ne-ya-an-ta-at*, *u-wa-an-ta-at*

## Imperative

- 1 sg. *ar-ḥa-ḥa-ru*, *u-wa-aḥ-ḥa-ru* *u-wa-aḥ-ḥa-ru*  
 2 sg. *(a)ar-ḥu-ut*, *e-eš-ḥu-ut*, *i-ya-aḥ-ḥu-ut*, *na-(a)iš-ḥu-ut*, *za-aḥ-ḥi-ya-aḥ-ḥu-ut*  
 3 sg. *ar-ta-ru*, *e-ša-ru*, *ki-it-ta-ru* *ki-id-da-ru*, *i-ya-ta-ru*, *ne-ya-(a)ru*, *pa-aḥ-ša-ru*  
 2 pl. *ar-du-ma-at*, *e-eš-tum-ma-at* *e-eš-du-ma-at*, *ki-id-du-ma-ti*, *i-ya-ad-du-um-ma-at*, *na-iš-du-ma-at*, *pa-aḥ-ḥa-aš-du-ma-at*, *za-aḥ-ḥi-ya-ad-du-ma-at*  
 3 pl. *a-ra-an-da-ru* *a-ra-an-ta-ru*, *i-ya-an-ta-ru*, *ne-ya-an-da-ru*, *pa-aḥ-ša-an-ta-ru* *pa-aḥ-ša-an-da-ru*

<sup>104</sup> So in KBo. 3.7.4.7, beside *e-šu-wa-aš-ta* in KUB 12.66.4.10.





# INDEXES

References are to sections

## HITTITE

Alphabetic order: *a, e i-e e-i, ħ, i, k g q, l, m, n, p b, r, š, t d, u ú, w, y, z.*

N.B. *-a-a*<sup>1</sup> = *aya. a-a, -a-a, a-a-*, or *a-a-a* = *a. i-e, -i-e, e-i, -e-i, -e-i-*, or *i-e-i* = *e. i-i, i-i, i-i*, or *i-i-i* = *i. -u-ú-, -ú-u-, -ú-u-, -u-u, or u-u-u* = *u.*

Syllabic transcription	Suggested phonetic interpretation <sup>2</sup>	Section
<i>ḫ-a-an</i>	<i>ayan</i>	76a
<i>a-a-an-za</i>	<i>ayants</i>	39, 76a
<i>a-a-ra</i>	<i>ayara</i>	129
<i>a-a-ri</i>	<i>ayari</i>	39, 76a
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<i>ak-ku-uš-ki-iz-zi</i>	<i>akuskitsi</i>	60, 229b
<i>ak-ta</i>	<i>akt</i>	270c
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<i>a-ku-ut-tar-aš 'drinker'</i>	<i>agutaras</i>	110
<i>a-ku-(wa-)an-na</i>	<i>agwanna</i>	60, 133e
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<i>al-wa-an-za-tar</i>	<i>alwantsadar</i>	99

<sup>1</sup> *-a-* here represents the vowel-sign *-a-*; *-e-* represents the vowel-sign *-e-*; *a-* represents any syllabic sign ending with *a* (e.g. *ḫa*); *-a* represents any syllabic sign beginning with *a* (e.g. *aḫ*).

<sup>2</sup> It is hoped that this column may be helpful; but it must not be forgotten that there are still many unsolved problems precisely here. In general *ḫḫ* is represented by *x* (voiceless velar spirant); single *ḫ* between vowels by *γ* (voiced velar spirant); *kk, gg, or qq* by *k*; single *k, g, or q* between vowels by *g*; *pp* or *bb* by *p*; single *p* or *b* between vowels by *b*; *tt* or *dd* by *t*; single *t* or *d* between vowels by *d*; but in initial position or next a consonant these symbols are interpreted on the basis of etymological or other considerations. Occasionally *kk, pp, tt*, etc., are interpreted as representing gemination, and in several words I am frankly puzzled by them. Since I do not understand doubling of other consonants, I have followed the spelling of the tablets, except that both *z* and *zz* are represented by *ts*.

Usually the reasons for the form adopted in the second column can be found by reading the sections of the grammar referred to. Consistency in writing *e* or *i* is not attempted.

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<i>am-mu-uk</i>	<i>ammug</i>	13, 68, 170c
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<i>-an</i>	<i>-an</i>	13, 58, 59a
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<i>a-ni-ya-az</i>	<i>anyats</i>	97, 129d
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<i>an-ni-iš-ki-iz-zi</i>	<i>anniskitsi</i>	230
<i>an-da</i>	<i>anda</i>	63a, 214
<i>an-da-an</i>	<i>andan</i>	63a, 214
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<i>an-tu-uḫ-ša-an-na-an-za</i>	<i>antuxsanants</i>	99
<i>an-tu-uḫ-ša-(a-)tar</i>	<i>antuxsadar</i>	99
<i>an-tu-uḫ-šu-uš</i>	<i>antuxsus</i>	59a
<i>an-dur-ri-ya-aš</i>	<i>andurriyas</i>	63a
<i>an-dur-za</i>	<i>andurts</i>	63a, 64, 84
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<i>an-zi-el</i>	<i>antsel</i>	63a, 170d, g
<i>an-zi-da-az, an-zi-ta-az</i>	<i>antsidats</i>	63a, 170e, g
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<i>a-pi-e-da</i>	<i>abeda</i>	198, 201
<i>a-be-da-an</i>	<i>abedan</i>	201
<i>a-pi-ya 'even they'</i>	<i>abeya</i>	61b
<i>a-pi-ya 'there'</i>	<i>abeya</i>	191
<i>a-pu-(u-)un</i>	<i>abun</i>	63
<i>a-ap-pa</i>	<i>apa</i>	53, 76a, 85, 214
<i>a-ap-pa-</i>	<i>apa-</i>	215
<i>(a-)ap-pa-a-i</i>	<i>apay</i>	125, 238b
<i>a-ap-pa-an</i>	<i>apan</i>	214
<i>(a-)ap-pa-an-na</i>	<i>apanna</i>	133e
<i>ap-pa-an-za</i>	<i>apants</i>	111
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<i>ap-pa-an-zi</i>	<i>apantsi</i>	60, 85
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<i>ap-pu-(uz-)zi</i>	<i>aputsi</i>	107
<i>a-ra-(a-)i</i>	<i>aray</i>	217, 238b
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<i>a-ra-aḫ-zé-na</i>	<i>araxtsena</i>	76a, 146
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<i>a-ra-(u-)wa-aḫ-ḫi</i>	<i>arawaxi</i>	224
<i>a-ri-eš-ši</i>	<i>aressi</i>	61b
<i>ar-ḫa</i>	<i>arxa</i>	76a, 214
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<i>a-ar-(aḫ-)ḫu-un</i>	<i>arxun</i>	63, 70
<i>ar-ḫa-ḫa-ri</i>	<i>arxari</i>	74

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(a-)aš-ša-u-wa-aš	assawas	132b, 136
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a-da-an-za	adants	111
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a-ú-(um)-me-ni	awmmeni	238c
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(a-)uš-te-ni	awsteni	238c
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a-zi-ki-wa-an	atskiwan	102
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az-zi-(ik-)ki-iz-zi	atskitsi	27, 83, 87, 229b
-e, see -aš		
e-ḫu	eryu	61b
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<i>e-ša-ti</i>	<i>esadi</i>	282
<i>e-še-ir</i>	<i>eser</i>	257, 279
<i>e-še-eš-ki-ir</i>	<i>eseskir</i>	230
<i>e-eš-ḥa-ḥa-ri</i>	<i>eszari</i>	74
<i>e-eš-ḥa-ḥa-at</i>	<i>eszat</i>	284
<i>e-eš-ḥa-na-an-za-aš-ša</i>	<i>eszanants-a</i>	30
<i>e-eš-ḥa-an-ta</i>	<i>eszant</i>	141
<i>e-eš-ḥar</i>	<i>eszar</i>	56, 65, 75, 87
<i>e-eš-ḥar-nu-ut</i>	<i>eszarnut</i>	228c
<i>e-eš-ḥa-a-aš</i>	<i>eszas</i>	89
<i>e-eš-ḥa-at</i>	<i>eszat</i>	284
<i>e-eš-ḥa-ti</i>	<i>eszadi</i>	284
<i>eš-ḥé</i>	<i>esze</i>	61b
<i>e-eš-ḥu-ut</i>	<i>esxut</i>	290
<i>e-šir</i>	<i>esir</i>	279
<i>e-eš-li-it</i>	<i>eslit</i>	258
<i>e-eš-lu-ut</i>	<i>eslut</i>	258
<i>e-eš-ri-eš-ši</i>	<i>esre-ssi</i>	61b, 133b
<i>e-eš-ša-(a-)i</i>	<i>essay</i>	237
<i>e-eš-šu-wa-an</i>	<i>esswan</i>	102
<i>e-eš-ta</i>	<i>est</i>	82a, 255
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<i>e-šu-u-wa-ar</i>	<i>eswar</i>	101
<i>e-šu-wa-aš-ta-ti</i>	<i>eswastadi</i>	282
<i>e-eš-zi 'est'</i>	<i>estsi</i>	47, 56, 77, 82b, 87, 220a
<i>e-eš-zi 'set, sit'</i>	<i>estsi</i>	77, 220b
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<i>e-di</i>	<i>edi</i>	83, 189
<i>e-te-ir</i>	<i>eder</i>	53, 72, 83, 279
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<i>e-(iz-)za-(az-)zi</i>	<i>etstsi</i>	30, 77, 84a
<i>e-iz-ta</i>	<i>etst</i>	84a
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<i>ḥal-ḥal-tu-ma-ri-e-eš</i>	<i>xalxaltumares</i>	90
<i>ḥal-ki-iš</i>	<i>xalkis</i>	129b
<i>ḥal-li-ya-mi-e-eš (pl.)</i>	<i>xalliyames</i>	142
<i>ḥal-li-ya-ri-aš (gen.)</i>	<i>xalliyaryas</i>	117
<i>ḥal-lu-wa-ya-za</i>	<i>xalluwayats</i>	135
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<i>ḥa-mi-na-a-i</i>	<i>xaminay</i>	133a
<i>ḥa-ni-iš-na-an-za</i>	<i>xannesnants</i>	137
<i>ḥa-an-na-a-i</i>	<i>xannay</i>	75, 215
<i>ḥa-an-na-aš</i>	<i>xannas</i>	66
<i>ḥa-an-ne-eš-šar</i>	<i>xannessar</i>	96

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ḥa-an-da-(a-)tar	xantadar	99
ḥa-an-da-at-ta-aš	xantatas	97
ḥa-an-da-u-wa-ar	xantawar	101
ḥa-an-te-iz-zi	xantetsi	133b
ḥa-an-te-iz-zi-az	xantetsyats	134
ḥa-an-te-iz-zi-ya-aš	xantetsyas	129b
ḥa-an-te-iz-zi-iš	xantetsis	12, 105
ḥa-an-ti(-i), ḥa-an-di	xanti	12, 47, 66, 74, 82, 214
ḥa-an-ti-ya-ra (dat.)	xantiyara	133a
ḥa-an-za	xants	12, 66, 74, 82
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*ḥa-ap-pi-ri-ya-še-eš-šar	xapiriyasessar	89
ḥar-ak-zi	xarktsi	80
ḥa-ra-na-aš	xaranas	58
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ḥar-ḥa-ra-a-e, ḥar-ḥa-ra-i	xarxaray	133a
ḥar-ḥa-ra-an	xarxaran	90
ḥar-ga-an-na	xarkanna	133c
ḥar-kán-na-aš	xarkannas	99
ḥar-ga-nu-ši	xarkanusi	228d
ḥar-ki-eš-zi	xarkestsi	225
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ḥar-ni-ik-zi	xarninktsi	226
ḥar-ni-in-ku-un	xarninkun	70
ḥar-ni-in-ku-wa-an-zi	xarninkwantsi	103
ḥar-ru-u-wa-an-zi	xarrwantsi	103
ḥar-ša-na-al-la-an-da-an	xarsanallantan	111
ḥar-ši-ḥar-ši	xarsixarsi	90
ḥar-ši-ya-aš	xarsiyas	115
ḥar-zi	xartsi	72, 74
ḥa-a-aš	xas	129d
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ḥa-a-ši	xasi	56, 233
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ḥa-aš-ša-an	xassan	74
ḥa-aš-ša-an-na	xassanna	59, 133a
ḥa-aš-ša-an-na-i	xassannay	133a
ḥa-aš-ša-an-na-an-za	xassannants	134
ḥa-aš-ša-nu-e-ra-an	xassanwer-an	228d
ḥa-aš-še-it	xasset	138
ḥa-aš-šu-uš (gen.)	xassus	132
*ḥa-aš-šu-uš-ša-ri (dat.)	xassussari	89

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<i>ħa-aš-du-(e-)ir</i>	<i>xastwer</i>	58, 75, 83, 87, 95
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<i>Ĥa-at-tu-ša-aš</i>	<i>xatusas</i>	7
<i>Ĥa-at-tu-ši-li-iš</i>	<i>xatusilis</i>	7
<i>ħa-tu-ga(-ya)</i>	<i>xaduga-ya</i>	133b
<i>ħa-tu-ga-e-eš</i>	<i>xadugaes</i>	142
<i>ħa-tu-ga-ya-az</i>	<i>xadugayats</i>	135
<i>ħa-az-za-aš-ta</i>	<i>xatst</i>	30
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